ATYDPLTGYSFDGFDI (SEQ ID NO: 2153)	ATYDFLIGISFDGFDI (SEQ ID NO: 2155) TERNYDH TGYYWPSMDV (SEO ID NO: 2940)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2153)	APYDIL TGYSDYYGMDV (SEQ ID NO: 2968)	DSDARLAALDAFDI (SEQ ID NO: 2978)	GQFGVLPNYYYHMDV (SEQ ID NO: 2943)	DIKRYNSNWPYYDYYMDV (SEQ ID NO: 2726)	DKQYYDILTGDPVEGGMDV (SEQ ID NO: 2889)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2153)	AGSSLVTYGTDV (SEQ ID NO: 2825)	SDDYDILTGNYVGSLLDY (SEQ ID NO: 2758)	DGRLSYDILTGY YARDY YGMDV	(SEQ ID NO: 2912)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2153)	DQNHPIYDILTGYYVPTGPLELKN	(SEQ ID NO: 2845)	EVRNYDLLTRSYLAGPLDN (SEQ ID NO: 2751)	DMGYDILTGYYGAFDI (SEQ ID NO: 2946)	DYYDVLTGFSLDGMDV (SEQ ID NO: 2829)	DHYDVL TGSYLQAFDV (SEQ ID NO: 2728)	GRYDFL TGYLRNFDY (SEQ ID NO: 2731)	GHYDIL TGYYFGFDY (SEQ ID NO: 2886)	DMKVYYKYALDV (SEQ ID NO: 2823)	DLRYDILTGYHDAFDI (SEQ ID NO: 2890)	SSPPKWYDALTGHSSYHSAMDV (SEQ ID NO: 2159)	HRRARVVVPVPGAMDV (SEQ ID NO: 2930)	DGSYDILTGYYIDNYMDV (SEQ ID NO: 2154)	RSMIVVTTAPYDAFDL (SEQ ID NO: 2785)	DTVRSGGMDV (SEQ ID NO: 2804)	DGSYDILTGYYIDNYMDV (SEQ ID NO: 2154)	SGPGWFDP (SEQ ID NO: 2870)	SGPGWFDP (SEQ ID NO: 2870)	ELGSSIVGATTGALDM (SEQ ID NO: 2852)	GDYDLLTGYPAECFQI (SEQ ID NO: 2854)	DNYDILTGYSRRFDP (SEQ ID NO: 2942)
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1061A09 1376 1061B07 1377 1061B07 1378 1061B12 1378 1061B12 1381 1061D01 1382 1061D03 1383 1061D04 1384 1061D07 1388 1061D09 1389 1061D09 1389 1061E01 1399 1061E02 1399 1061E03 1399 1061F01 1399 1061F01 1399 1061F01 1399 1061F01 1399 1061G01 1399 1061G01 1399 1061G03 1399 1061G01 1400 1064A01 1401 1064B01 1404 1064B01 1405 1064D02 1409 1064E01 1410 1064E01 1410

_	,	VLTNYDILTGYYREDAFDM (SEQ ID NO: 2939)	GMGDHYGMDV (SEQ ID NO: 2161)	DRGASNYDILTGYYAPAQGVAFDI	(SEQ ID NO: 2969)	EGAHYDILTGHNYYHYGMDV (SEQ ID NO: 2747)	ETRKYTSSPPYNYYYMDV (SEQ ID NO: 2736)	AGSSLMTYGTDV (SEQ ID NO: 2773)	DQHDILTGVYYGMDV (SEQ ID NO: 2921)	•	DYPGSEYDILTGYLFGYYYYGMDV (SEO ID NO: 2926)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2153)	ARRVGVLGGKNAFEI (SEQ ID NO: 2765)	DQHDILTGGYYGMDV (SEQ ID NO: 2894)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2153		_	_	•	GVVWVAYGDVGIYGFDV (SEQ ID NO: 2937)		_			_	1		_		-	'			SSPPKW Y DALIGDSS Y HSAIMD V (SEQ ID INO: 2103)
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1066G12	1066H04	I067A07	T067A11	1067B08		1067C08	1067C09	I067D07	1067E01	1067E06	I067E07	1067E11	1067G03	1067G05	1067G12	1067H05	1067H06	I068C09	1068G03	1068G04	I068G07	1068G08	I070F07	1070G05	I070H02	I071A01	I071A03	I071B08	I071E01	I071F11	I071G11	I071H08	I074A02	I074A08

99 - 117 DKTLGDQLVEAYYYDGMDV (SEQ ID N 99 - 117 LGRTSRDLLTGYHFYNMDV (SEQ ID NC 99 - 113 DDYDILTGSLYYFDS (SEQ ID NO: 2803) 99 - 116 GTGYDILTGYYMGSAFDQ (SEQ ID NO: 2739) 99 - 113 DRADILTGYNDAFDI (SEQ ID NO: 2739) 99 - 112 RYGDPFYYYYYMNV (SEQ ID NO: 2755)	99 - 116 99 - 115 99 - 116	66 99 - 106 DQGRYLDL (SEQ ID NO: 2175) 66 99 - 106 DQGRYLDL (SEQ ID NO: 2175) 65 98 - 113 PT (PLATTGAL)DM (SEQ ID NO: 2174)	99 - 116	66 99 - 113 SDYDILTGYYWVPAV (SEQ ID NO: 2812) 66 99 - 120 GREDTDKVKPWDRYFHYYYMDV	(SEQ ID NO: 2835) 56 99 - 106 DOGRYLDL (SEQ ID NO: 2175)	99 - 116	99 - 114	55 98 - 113 ELGLSIVGALIGALDM (SEQ ID NO: 21/4). 56 99 - 116 GTGYDILTGYYMGSAFDQ (SEQ ID NO: 2800)	101 - 121	56 99 - 116 GRGYDVLTGYFTGSPLDY (SEQ ID NO: 2881) 55 08 - 113 FTGFSTVGATTGALDM (SEQ ID NO: 2174)	98 - 113	99 - 106	99 - 115	56 99-117 EQGYDILI'GYYPEGGWFDF (SEQ ID NO: 2834) 57 100 114 AGYDITTGYYPEYEDS (SEO ID NO: 2757)	99 - 117	99 - 113	99 - 106 DQRKAQDI (SEQ ID NO: 2779)	99 - 118	66 99 - 106 DQGRYLDL (SEQ ID NO: 2173) 66 99 - 106 DQGRYLDL (SEQ ID NO: 2175)
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GRYYDMLTRGGYFDY (SEQ ID NO: 2174) GRYYDMLTRGGYFDY (SEQ ID NO: 2858) RQYDLTGYYGGFDY (SEQ ID NO: 2958) TDYDLTGYPMGYFDP (SEQ ID NO: 2173) DQGRYLDL (SEQ ID NO: 2175)	GTGYDILTGYYMGSAFDQ (SEQ ID NO: 2800) DQGRYLDL (SEQ ID NO: 2175)	DQUKTLDL (SEQ ID NO: 21/3) GSGYDLLTGYFTGSPLDY (SEQ ID NO: 2766)	GYDTAMQY (SEQ ID NO: 2951)	DQGRYLDL (SEQ ID NO: 2175) DRRDILTGSNFGQD (SEQ ID NO: 2913)	MGHYDIL TGYRHYGMDV (SEQ ID NO: 2831) GSGYDI I TGYFTGSBI DV (SEO ID NO: 2766)		DQGRYLDL (SEQ ID NO: 2175)		ELGLSIVGALTGALDM (SEQ ID NO: 21/4) GRYYDMLTRGGYFDY (SEO ID NO: 2858)		RFYDLLTGYSAFDS (SEQ ID NO: 2756)	GTGYDILTGYYMGSAFDQ (SEQ ID NO: 2800) EFG SHYCATTGALDM (SEQ ID NO: 2174)	ELGESIVGAI I GALDIM (SEQ ID NO: 21/4) GTGYDII,TGYYMGSAFDO (SEO ID NO: 2800)	EYYDVLTGLFYYMDV (SEQ ID NO: 2841)	DDRDILTNYYLEYFQH (SEQ ID NO: 2868)	GTGYDILTGYYMGSAFDQ (SEQ ID NO: 2800)	GTGYDILTGYYMGSAFDQ (SEQ ID NO: 2800)	OGRYLDL (SEO ID NO: 2175)	VHYDILTGYLWAFDI (SEQ ID NO: 2730)	ELGLSIVGATTGALDM (SEQ ID NO: 2174)	OGGRYLDL (SEQ ID NO: 2175)	GRYYDMLTRGGYFDY (SEQ ID NO: 2858) GTGYDILTGYYMGSAFDQ (SEQ ID NO: 2800)
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1075G05 1075G07 1075G08 1075G11 1075G12	1075H02 1075H03	1075H08 1075H08	1076A03	I076A06 I076A07	I076A08 I076B01	I076B03	I076B07	I076B08	10/6C04 10/6C10	I076D01	I076D08	I076D11	1076E04	I076E07	1076E09	I076E11	1076F01 1076F03	1076F04	I076F08	I076F10	1076G09 107CG10	10/6G10 1076G11

NGYYDILTGYYLWDYYYGMDV (SEQ ID NO: 2769)	ENYDSLTGYYNYFDY (SEQ ID NO: 2971) THYDILTGYYSHPLDY (SEQ ID NO: 2863)	ELGLSIVGATTGALDM (SEQ ID NO: 2174)	VPYDILTGYWGAFDV (SEQ ID NO: 2827)	GSGYDLLTGYFTGSPLDY (SEQ ID NO: 2/00)	GSGYDLLTGYFTGSPLDY (SEQ ID NO: 2/66)	VYYDILTGYNLFFDY (SEQ ID NO: 2177)	VYYDILTGYNLFFDY (SEQ ID NO: 2177)	MEYDILI'GYYGGYFDY (SEQ ID NO: 2174)	ELGESIVGATTGALDM (SEQ ID NO: 21/4)	ELGESIVGATTGALDM (SEQ ID NO: 21/4)	ELGENIVGALIGALDM (SEQ ID NO. 21/4)	٠.	DRGAPNYDIL I GY YAPAQGVAFDA VSFO ID NO: 2176)	(SEC ID IVO: 2179) DOGRYLDL (SEO ID NO: 2175)		ELGLSIVGATTGALDM (SEQ ID NO: 2174)	ELGLSIVGATTGALDM (SEQ ID NO: 21/4)	ELGLSIVGATTGALDM (SEQ ID NO: 21/4)	DUKLSTULLOTIAKUI LOMDU (SEQ 10 INO. 2188) SEGTIDAYD (SEO ID NO. 2178)	SECTION (3EX ID 100: 21/3)	GKG1 IDILIG1 I KUNWEDF (SECEDING: 2101) TDSSVYDDI I TGVYHYFYSYMDV (SEO ID NO: 2189)	FKSAAGYFDY (SEO ID NO; 2190)	ENVIOLE TGVVGAEDI (SEO ID NO: 2185)	DOGRYLDL (SEQ ID NO: 2175)	KLGLSIVGATTGALDM (SEQ ID NO: 2186)	EGMNDFINSHHYYTMDA (SEQ ID NO: 2182)	AGNET GHIERFADT (SEQ ID NO: 2189) MEYDII TGYYGGYFDY (SEO ID NO: 2179)				
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1587	1589	1590	1591	1592	1594	1595	1596		1597	1598	1599	1600	1601	1602	1603	1604	1605	1606	1607	1608	1609	1610	1611	1612	1613	1614	1615	1616	1617	1618	1619	1620
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DRGASNYDILTGYYAPAQGVAFDI (SEO ID NO: 2969)	•	AIYDKLIGISKDGFDI(SEQID	7 /		-		_, _							•						GLYFEDINYRHGDAFDI (SEQ ID NO: 2/90)		' '			•	_ '	•	٠, ١	٠.				O AGSSLMII IGIDV (SEQIDIVO: 2113)
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1621	1622	1623	1624	1625	1626	1627	1628	1629	1630	1631	1632	1633	1634	1635	1636	1637	1638	1639	1640	1641	1642	1643	1644	1645	1646	1647	1648	1649	1650	1651	1652	1653	1654
1064H06	I065A02	I065A04	I065A06	I065A07	I065B01	1065B05	I065B09	I065B12	T065C02	1065C06	1065C08	T065C10	1065D01	1065D03	1065D05	1065006	1065E01	T065F05	1065E06	1065E08	1065E09	1065E12	1065F04	I065F05	1065F07	1065F09	1065F12	1065G01	1065G09	1065G10	1065H05	1065H07	I066A05

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1066A06 1066A12 1066B05 1066B11 1066C06 1066C10	1066D02 1066D07	1066E01		1060E04 1066E05	1066E07	I066E09	I066F01	1066F03	1066F04	I066F07	1066F08	I066F11	1066F12	90D990I	1066G07	1066H02	I067A02	I067A03	I067A06	I067A08	I067A10	I067B03	I067B04	I067C03	1067C05	I067C07	1067C10

TYYDILTGYSGGGAFDY (SEQ ID NO: 3024)		AGSSLMTYGTDV (SEQ ID NO: 2773)		·	_	_		-		QHYDILTGYSQEPFDI (SEQ ID NO: 3022)	• •	_		•	ENYDFLTGYYGAFDI (SEQ ID NO: 27)	·	AGSSLMTYGTDV (SEQ ID NO: 2773)	GGLYDILTGRPATDDAFDI (SEQ ID NO:	•	0 GREDTDKVKPWDRYYHYYYMDV	(SEQ ID NO: 2809)	_				RYGDPFYYYYMNV (SEQ ID NO: 2755)		MEYDILTGYYGGYFDY	MEYDILTGYYGGYFDY		PYYDILTGYFAFDI (SEQ ID NO: 3026)	•		•	5 DGY YDILLIGYSY YGMDV (SEQ ID NO: 2133)
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00,7	1691	1692	1693	1694	1695	1696	1697	1698	1699	1700	1701	1702	1703	1704	1705	1706	1707	1708	1700	1710	1/10	1711	1717	1713	1714	1715	1716	1717	1718	1719	1720	1721	1722	1723	1724
0	106/C12 1067D01	1067003	10671005	50C1/50I	1067109	106717	1067E02	TO67E04	TO67E05	1067F01	1067F03	1067F04	1067F08	1067F10	T067F11	TO67G01	105/501	705/00I	1068 A 0.7	1008A07	TOPOEDO	0000701	1068E08	1000E11	10.12501 10.68G05	1068G06	1068G11	1069A09	T069A10	1069B06	1069B09	1069B12	1069C06	1069C09	I069D03

DGYYDILTGYSYYGMDV (SEQ ID NO: 2135) VYYDILTGYNLFFDY (SEQ ID NO: 2177) MEYDILTGYYGGYFDY (SEQ ID NO: 2179) MEYDILTGYYGGYFDY (SEQ ID NO: 2179) GYYDILTGYYDAFDI (SEQ ID NO: 3051) DGYYDILTGYSGYYMDV (SEQ ID NO: 3059)	DRLEYYDLTGYYYYYGMDV (SEQ ID NO: 3039) MEYDLTGYYGGYFDY (SEQ ID NO: 2179)	METDLLIGITGGIFDT (SEQ ID NO: 2179) MEYDLLIGYYGGYFDY (SEQ ID NO: 2179) SOSDYDIT TGYYYYGMDV (SEQ ID NO: 3038)	ID NO: 2179		SQSDYDIL'I'GYYYYYGMDV (SEQ ID NO: 3028) SOSNYDII TGYYYYYGMDV (SEO ID NO: 3067)	ID NO:	GMGDHYGMDV (SEQ ID NO: 2161)	GMGDHYGMDV (SEQ ID NO: 2161)	AGISLMINIGIDY (SEQ 10 NO. 3048) VPVVVDTSGGVI GEVYYGMDV (SEO ID NO. 3010)	AGTSLMNYGTDV (SEQ ID NO: 3048)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2153)	SRDLLLFPHYGMDV (SEQ ID NO: 2133)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2153)	GMGDH YGMDV (SEQ ID INO: 2101) AGSST MTVGTDV (SEO ID NO: 2773)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2153)	ENYDYL TGYYGAFDI (SEQ ID NO: 2995)	GMGDHYGMDV (SEQ ID NO: 2161)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2153)	ATYDPLTGYSFDGFDI (SEQ ID NO: 2155)	GMIGDH I GMIDY (SEQ ID INO; 2101)	Alidreigisfugeni (SEQ ID IOC 2133) Egevini travvvgvgrmin (SEO ID NO: 2171)		
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RYGDPFYYYYYMNV (SEQ ID NO: 2755) ELGLSIVGATTGALDM (SEQ ID NO: 2174) GGYDIL TQYPAEFFHP (SEQ ID NO: 2764) DQGRYLDL (SEQ ID NO: 2175) DRYYDILTKGDYYYGMDV (SEQ ID NO: 3060) VQGETYYDILTGYWGPKRDLYGMDV	(SEQ ID NO: 3009) ELGLSIVVATTGALDM (SEQ ID NO: 2980) ESEGGDYTNPFGY (SEQ ID NO: 2991) DQGRYLDL (SEQ ID NO: 2175) ELGLSIVGATTGALDM (SEQ ID NO: 2174)	DECREAM CALLEY (SEQ ID NO: 2174) DPGNYDILTGYYYYYGMDV (SEQ ID NO: 2935) VRLPHHHYFMAV (SEQ ID NO: 3075) ESSITVNPPYYFYGMDV (SEQ ID NO: 3025)	DQGRYLDL (SEQ ID NO: 2175) DQGRYLDL (SEQ ID NO: 2175) SPEGDYQPLSSNYNWLDP (SEQ ID NO: 3011)	GKEGYNDN (SEQ ID NO: 3089) GSGYDLLTGYFTGSPLDY (SEQ ID NO: 2766) SPEGDYOPLSSNYNWLDP (SEO ID NO: 3011)	MGHYDILTGYRHYGMDV (SEQ ID NO: 2831) GNYDILTGYPHDL (SEQ ID NO: 3086) SYYDILTGYYHTPLDY (SEO ID NO: 2853)	GSGYDLLTGYFTGSPLDY (SEQ ID NO: 2766) DDRDILTNYYLEYFQH (SEQ ID NO: 2868) GSGYDVLTGYFTGSPLDY (SEO ID NO: 3057)	GRYDILTGYFTSFDY (SEQ ID NO: 3066) DDRDILTNYYLEYFQH (SEQ ID NO: 2868) STGYDII TGYYMGSAFDO (SEO ID NO: 2800)	MGHYDILTGYRHYGMDV (SEQ ID NO: 2831) DOGRYLDL (SEQ ID NO: 2175)	ELGLSIVGAŤTGALDM (SEQ ÍD NO: 2174) GTGYDILTGYYMGSAFDQ (SEQ ID NO: 2800)	DQGRYLDL (SEQ ID NO: 2175) RDVQGAPY (SEQ ID NO: 3088) VEGVYDIL,TGYSFDAFDI (SEQ ID NO: 3078)
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EQGYDILTGYYPEGGWFDP (SEQ ID NO: 2834)	ELGLSIVGATTGALDM (SEQ ID NO: 2174) DESEXYDH TGXYXYXGMDV (SEO ID NO: 3052)		MEYDIL TGYYGGYFDY (SEQ ID NO: 2179)		MEYDILTGYYGGYFDY (SEQ ID NO: 2179)	А	EMGYDILTGYYLNYMDV (SE	EMGYDILTGYYLNYMDV (SE	MEYDILTGYYGGYFDY (SEQ	MEYDILTGYYGGYFDY (SEQ	MEYDILTGYYGGYFDY (SEQ ID	MEYDILTGYYGGYFDY (SEQ ID NO:	_	• •	٠.	_	_	_	_		_	_		,			VGIKAAAVDNFEY (SEQ ID NO: 2197)		_		_		_, ,	WISSGAFDI (SEQ ID NO: 2203)
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SGRQAYYYYGMDV (SEQ ID NO: 3091) FFEGYVYY TDV (SEQ ID NO: 3165)	, ,,	VDYTDYEMGAFEI (SEQ ID NO: 3187)	•	•,			LHCSGGSCGF (SEQ ID NO: 3221)					•				_		_	LRPDADYGDYGFDY (SEQ ID NO:	-		_					RTPDHINGDSGPPDY (SEQ ID NO: 3215)	DTTDY (SEQ ID NO: 2203)	_	_	_	_	_	GGDRAFDI (SEQ ID NO: 3119)
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DTTDY (SEQ ID NO: 2203) GNAWGAFDI (SEQ ID NO: 2211)	GGDRAFDI (SÈQ ID NO: 3119)	VKRYYFDY (SEQ ID NO: 3179)	IDAFDI	RRYALDY (SEQ ID NO: 2920	DITIDY (SEQ ID NO: 2203	OTTDY (SEQ ID NO: 2203)	GFALYKD (SEQ ID NO: 31	DTTDY (SEQ ID NO: 2203)	OTTDY (SEQ ID NO: 2203)	EDLTGDAFDI (SEQ ID NO: 3103)	3DAYFDY (SEQ ID NO: 3147	GDAYFDY (SEQ ID NO: 3147	DITIDY (SEQ ID NO: 2203			DTTDY (SEQ ID NO: 2203)	DTTDY (SEQ ID NO: 2203)	DTTDY (SEQ ID NO: 2203	OTTDY (SEQ ID NO: 2203)	VGYGGKGDY (SEQ ID NO: 3137	GAGSRYFDL (SEQ ID NO: 3118)	DGGMI	OTTDY (SEQ ID NO: 2203	RLIRKAR (SEQ ID NO: 3170)	DTTDY (SEQ ID NO: 2203)	ERGNQAFDI (SEQ ID NO: 3156)	RRYALDY (SEQ ID NO: 2920)		(SEQ			(SEQ	_	
DTTDY	GGDRA	VKRYY	ELTGA	RRYAL)	DTTDY	DITDY	GFALYI	DTTDY	DTTDY	EDLTG	GDAYE	GDAYE	DITDY	DTTDY	EGLLDAFDI	DTTDY	DTTDY	DTTDY	DITIDY	VGYGG	GAGSR	GLAPIV	DTTDY	RLIRK	DITDY	ERGNO	RRYAL	DTTDY	DITDY	DTTDY	SRSPYDAFDI	DITDY	DITDY	DTTDY
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183 216	-	186 219	• •	185 218	186 219	185 218	185 218	185 218	185 218	188 221	185 218	185 218	184 217	186 219	191 224	185 218	185 218	186 219	186 21	187 22	187 22	195 22	186 21	185 21	183 21	191 224	185 21	183 21	185 218		•			186 219
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2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1081B01	1081B05	T081B06	1081B07	I081B08	I081B09	I081B10	I081B11	I081C07	I081C08	I081D04	I081D06	I081D08	81D09	I081D10	I081D11	I081D12	I081E02	I081E03	I081E05	1081E06	I081E07	I081E10	I081F01	I081F04	I081F05	I081F06	81F07	I081F11	I081G01	81G04	81G06	1081G10	I081H02	I081H03
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SNWGGDAFDI (SEQ ID NO: 3202) LAFDI (SEQ ID NO: 3174)	DTTDY (SEQ ID NO: 2203)	PAASSRGPKDAFDI (SEQ ID NO: 3129)	LSGDS (SEQ ID NO: 3122)	EGVAAGEDY (SEQ ID NO: 3123)	FVLDY (SEQ ID NO: 2210)	GNGKDV (SEQ ID NO: 3135)	EGVAAGEDY (SEQ ID NO: 3123)	DLDFDY (SEQ ID NO: 2208)	VNDIVVVDMDV (SEQ ID NO: 3143)	EKRGSRRVFDI (SEQ ID NO: 3093)	LSNRNDNLRLDY (SEQ ID NO: 3106)	FVLDY (SEQ ID NO: 2210)	TWATNTFDM (SEQ ID NO: 3152)	FDLDY (SEQ ID NO: 3167)	VEWEDIVVGSAFDI (SEQ ID NO: 3128)	GGDMTTVTTDY (SEQ ID NO: 3177)	ADYSNDYYMDV (SEQ ID NO: 3166)	EGVAAGEDY (SEQ ID NO: 3123)	GPIYYFDGSAYEGYYFDY (SEQ ID NO: 3222)	MNADAFEI (SEQ ID NO: 3223)	PAASSRGPKDAFDI (SEQ ID NO: 3129)	DSRPTNRAFHY (SEQ ID NO: 3110)	LHCTGGSCGF (SEQ ID NO: 3186)	VRDDSAGFDY (SEQ ID NO: 3173)	VLVRGQYRGMDL (SEQ ID NO: 3138)	VDYTDYEMGAFDL (SEQ ID NO: 3172)	DRIAAAGGDAFDI (SEQ ID NO: 3194)	DLYKNGYALFDS (SEQ ID NO: 3197)	DEYSSLYMDV (SEQ ID NO: 3201)	FGAGRLYDDY (SEQ ID NO: 3224)	DNGGGTIGFDY (SEQ ID NO: 2195)	DQGIETANDY (SEQ ID NO: 3207)	DILPDYDFWNPNEDASSLDT (SEQ ID NO: 3133)
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DFQMVRGVFIANPPIYNYYGMDV (SEQ ID NO: 3154)	DADEGLVEAETTNWFDS (SEQ ID NO: 3126) ATKSYDILTRMYYYHMDV (SEQ ID NO: 2748)	DRTRMDV (SEQ ID NO: 3182)	VGIKAAAVLIVEEI (SEQ ID INO: 2197) DEIYNDAEDY (SEO ID NO: 3105)	DGDISDSPINNQNYAMDI (SEQ ID NO: 3101)	RGGTSENYSGMDV (SEQ ID NO: 3209)	DYPHNAFDI (SEQ ID NO: 3127)	DVRSDRFWSGGYFHYSGMDV (SEQ ID NO: 3131)	STLEVGATDFDY (SEQ ID NO: 3199)	SDDWGAYHI (SEQ ID NO: 3198)	ERGGRDGDYALDF (SEQ ID NO: 3148)	ELVGAPGGFDP (SEQ ID NO: 3191)	•		ERGGRDGDYALDF (SEQ ID NO: 3148)	EGGGDAYDVAPYYFDY (SEQ ID NO: 2204)	DPFDY (SEQ ID NO: 3134)	ALLGLPSDFSYYVDV (SEQ ID NO: 3159)	EGEGDGYNVAPYYFDY (SEQ ID NO: 3160)	TDYGGFDY (SEQ ID NO: 3092)	GGVGDSRGVFDP (SEQ ID NO: 3162)	DTTDY (SEQ ID NO: 2203)	DTTDY (SEQ ID NO: 2203)	ESLTGDAFDI (SEQ ID NO: 3116)	SPLHFSDAFDI (SEQ ID NO: 3120)	DTTDY (SEQ ID NO: 2203)	EVGGAFDI (SEQ ID NO: 3157)				DTTDY (SEQ ID NO: 2203)	DTTDY (SEQ ID NO: 2203)
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243 - 251	233 - 243 236 - 247)	1	234 - 244 234 - 244	227 - 237	225 - 234	1	227 - 237	225 - 236	229 - 239		229 - 239	228 - 238	229 - 239	232 - 242	221 - 231	1 - 241	232 - 242	222 - 232	226 - 236	218 - 226	219 - 229	221 - 231	222 - 232	219 - 229	223 - 232	218 - 226	218 - 226	1	- 1	218 - 226
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	254 165 258 169		249 161	-,		245 157	258 168			250 161	248 159	250 161	249 161	250 161	253 164	242 154	252 163	253 164	243 157	247 161	237 153	240 152	242 15	243 15	240 15	243 15	237 15	237 15	237 151	-	237 15
148 - 262	142 - 2: 146 - 2:		1	143 - 2		1	1	1	1	1	1	138 - 2	- 1	- 1	- 1	130 - 2	1	141 - 2	133 - 2	ì	1	1	135 - 2	136 - 2	130 - 2	133 - 2	130 - 2	130 - 2	130 - 2	1	130 - 2
2081	2082 2083	2084	2085	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114
I083D07	1083D08 1083D10	I083D12	1083E02	1083E03 1083E04	1083E08	I083E12	I083F02	I083F04	I083F06	I083F08	I083F11	1083G04	I083G05	1083G06	I083G08	1083G09	I083G11	I083H04	1083H05	I083H07	I084A03	I084A08	I084B08	I084C02	I084D03	I084D05	I084E01	1084E06	I084E10	I084E12	I084F04

218 - 226 1 - 114	192 225 - 234 1 - 119 26 - 35 50 - 66 99 - 108 ESLTGDAFDI (SEQ ID NO: 3116)	219-229 1-114 26-35 50-66 99-103 1	218-226 1-114 26-35 50-66 99-103 1	202 235 - 245 1 - 129 26 - 35 50 - 66 99 - 118 GAHYYDRSPSHLKSYWYFDL (SEQ ID NO: 3149)	228-238 1-122 26-35 50-66 99-111	227-237 1-122 26-35 50-66 99-111]	228-238 1-122 26-35 50-66 99-111	234-244 1-128 26-35 50-66 99-117 0	227-236 1-120 26-35 50-66 99-109]	230-240 1-124 26-35 50-66 99-113	227 - 236 1 - 120 26 - 35 50 - 66 99 - 109 1	227 - 236 1 - 120 26 - 35 50 - 66 99 - 109 1	230-240 1-124 26-35 50-66 99-113	228-236 1-124 31-35 50-65 99-113 1	224-234 1-119 31-35 50-66 99-108	228-236 1-124 31-35 50-65 99-113 (231-240 1-125 31-35 50-66 99-114]	232-242 1-128 31-35 50-66 99-117 0	231-246 1-125 31-35 50-66 99-114	238-247 1-132 31-37 52-69 102-121	197 230-239 1-125 31-35 50-66 99-114 ATYDPLTGYSFDGFD
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237	245	240	237	256	249	248	249	255	247	251	247	247	251	247	245	247	251	253	251	146 - 258	250
2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	3240	3241	3242	3243	3244	3245	3246	3247
I084F07	I084F12	I084G12	I084H02	1099B05	609660I	1099H01	90H660I	80H660I	I100A01	I100A10	I100B03	1100B04	I100C03	BAB2001	BAB2080	BAB2015	BAB2019	BAB2087	BAB2016	BAB2034	BAB2065

	Applicant's File		International Applicati	ON
]	Reference Number:	PF523PCT2	Number:	Unassigned

INDICATIONS RELATING TO DEPOSITED BIOLOGICAL MATERIAL

(PCT Rule 13bis)

A.	The indications made below relate to the deposited biological material referred to on page 155 in Table
	2, on page 24, paragraph 63, and on page 24, paragraph 64 of the description.

	2, on page 24, paragraph 63, and on page 24, paragraph 64 of the description.						
В.	IDENTIFICATION (OF DEPOSIT:	Further deposits are identified on an additional sheet:				
	me of Depository: dress of Depository:	American Type Culture Collection 10801 University Boulevard Manassas, Virginia 20110-2209 United States of America					

	Accession Number	Date of Deposit		Accession Number	Date of Deposit
1	PTA-3238	27-Mar-2001	2	PTA-3239	27-Mar-2001
3	PTA-3240	27-Mar-2001	4	PTA-3241	27-Mar-2001
5	PTA-3242	27-Mar-2001	6	PTA-3243	27-Mar-2001
7	97768	22-Oct-1996	8	203518	10-Dec-1998

CANADA

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

NORWAY

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

AUSTRALIA

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

FINLAND

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

UNITED KINGDOM

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

DENMARK

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later that at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

SWEDEN

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

NETHERLANDS

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

WHAT IS CLAIMED IS:

1. An antibody that immunospecifically binds to a protein consisting of amino acid residues 134-285 of SEQ ID NO:3228 and a protein consisting of amino acid residues 105-250 of SEQ ID NO:3239 comprising a first amino acid sequence at least 95% identical to a second amino acid sequence selected from the group consisting of:

- (a) an amino acid sequence comprising the amino acid sequence of a VHCDR of any one of the scFvs of SEQ ID NOS:3240 through 3247; and
- (b) an amino acid sequence comprising the amino acid sequence of a VLCDR of any one of the scFvs of SEQ ID NOS: 3240 through 3247.
- 2. The antibody of claim 1, wherein the second amino acid sequence consists of the amino acid sequence of a VH domain of any one of the scFvs of SEQ ID NOS: 3240 through 3247.
- 3. The antibody of claim 1, wherein the second amino acid sequence consists of the amino acid sequence of a VL domain of any one of the scFvs of SEQ ID NOS: 3240 through 3247.
- 4. The antibody of claim 2, which also comprises an amino acid sequence at least 95% identical to the amino acid sequence of a VL domain of any one of the scFvs of SEQ ID NOS:3240 through 3247.
- 5. The antibody of claim 4, wherein the VH and VL domains are from the same scFv.
- 6. The antibody of claim 1 wherein the first amino acid sequence is identical to the second amino acid sequence.
- 7. The antibody of claim 6 wherein the second amino acid sequence consists of the amino acid sequence of a VH domain of any one of the scFvs of SEQ ID NOS:3240 through 3247.

8. The antibody of claim 6 wherein the second amino acid sequence consists of the amino acid sequence of a VL domain of any one of the scFvs of SEQ ID NOS:3240 through 3247.

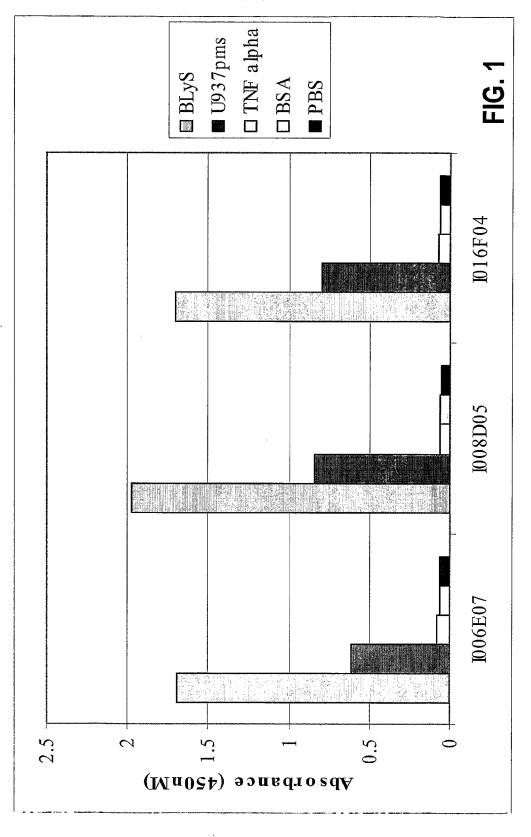
- 9. The antibody of claim 8 which also comprises an amino acid sequence 100% identical to the amino acid sequence of a VL domain of any one of the scFvs of SEO ID NOS:3240 through 3247.
- 10. The antibody of claim 1, wherein the antibody is selected from the group consisting of:
 - (a) a whole immunoglobulin molecule;
 - (b) an scFv;
 - (c) a monoclonal antibody;
 - (d) a human antibody;
 - (e) a chimeric antibody;
 - (f) a humanized antibody;
 - (g) a Fab fragment;
 - (h) an Fab' fragment;
 - (i) an F(ab')2;
 - (j) an Fv; and
 - (k) a disulfide linked Fv.
- 11. The antibody of claim 1, wherein the antibody has a dissociation constant (K_D) selected from the group consisting of:
 - (a) a dissociation constant (K_D) between 10^{-7} M and 10^{-8} M;
 - (b) a dissociation constant (K_D) between 10⁻⁸ M and 10⁻⁹ M;
 - (c) a dissociation constant (K_D) between 10^{-9} M and 10^{-10} M;
 - (d) a dissociation constant (K_D) between 10^{-10} M and 10^{-11} M;
 - (e) a dissociation constant (K_D) between 10^{-11} M and 10^{-12} M; and
 - (f) a dissociation constant (K_D) between $10^{-12}\,M$ and $10^{-13}\,M$.
 - 12. The antibody of claim 1, wherein the antibody is labeled.

- 13. The antibody of claim 12, which is labeled with a radiolabel.
- 14. The antibody of claim 13, wherein the radiolabel is 125 I, 131 I, 111 In, 90 Y, 99 Tc, 177 Lu, 166 Ho, or 153 Sm, 215 Bi, or 225 Ac.
- 15. The antibody of claim 12, which is labeled with an enzyme, a fluorescent label, a luminescent label, or a bioluminescent label.
 - 16. The antibody of claim 1, wherein the antibody is biotinylated.

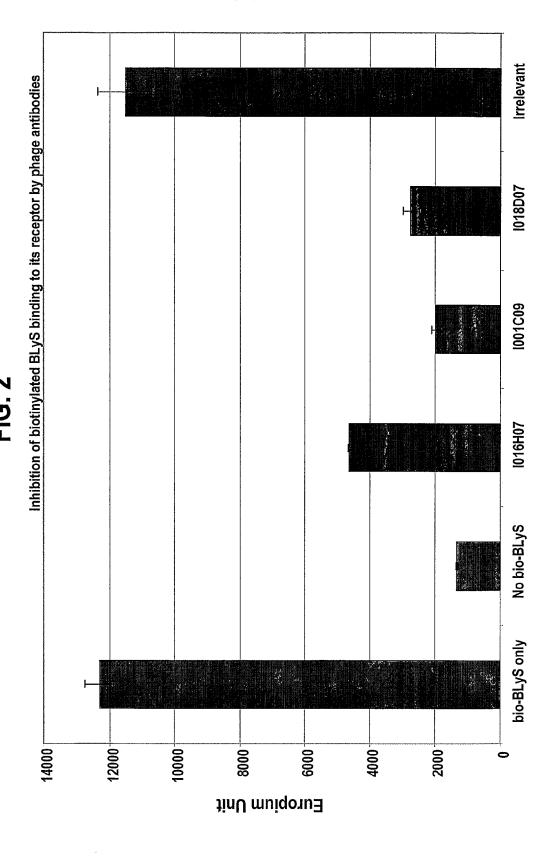
The antibody of claim 1, wherein the antibody is conjugated to a therapeutic or cytotoxic agent.

- 17. The antibody of claim 1 in a pharmaceutically acceptable carrier.
- 18. A kit comprising the antibody of claim 1.
- 19. An isolated nucleic acid molecule encoding the antibody of claim 1.
- 20. A vector comprising the isolated nucleic acid molecule of claim 19.
- 21. The vector of claim 20 which also comprises a nucleotide sequence which regulates the expression of the antibody encoded by the nucleic acid molecule.
 - 22. A host cell comprising the nucleic acid molecule of claim 19.
 - 23. A cell line engineered to express the antibody of claim 1.
- 24. An antibody that competes with the antibody of claim 1 for binding to a protein consisting of amino acid residues 134-285 of SEQ ID NO:3228 and a protein consiting of amino acid residues 105-250 of SEQ ID NO:3239.

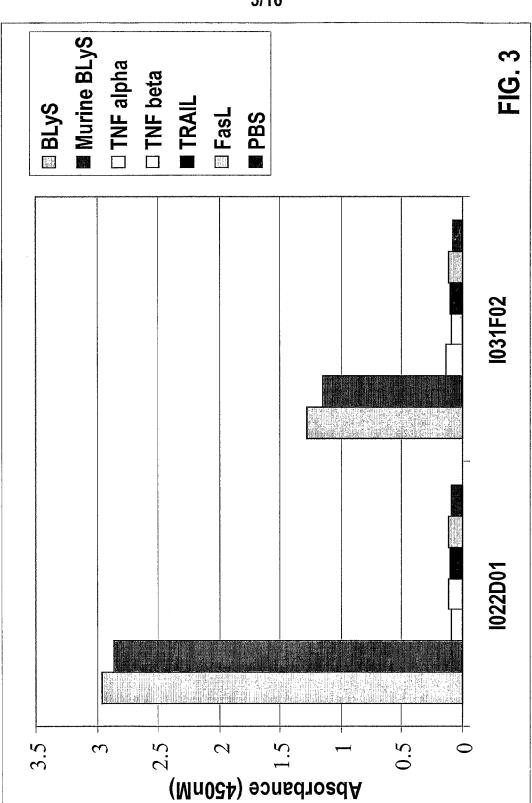




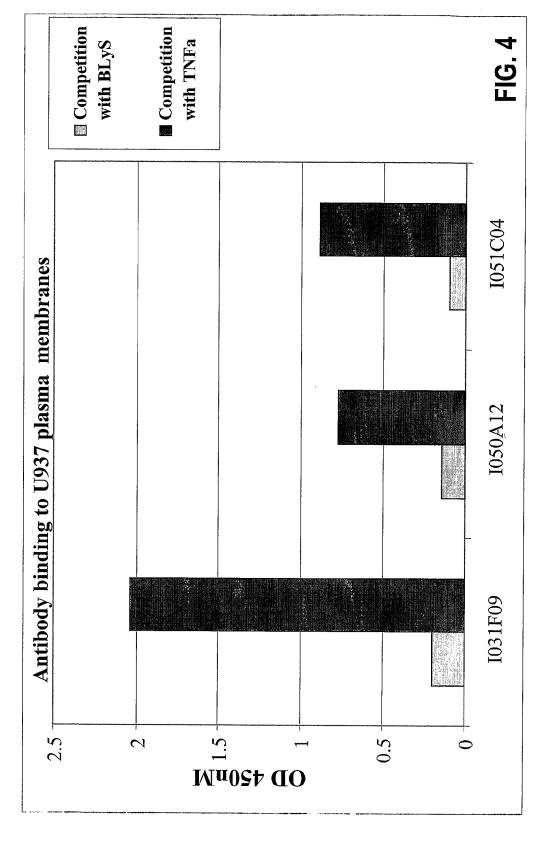
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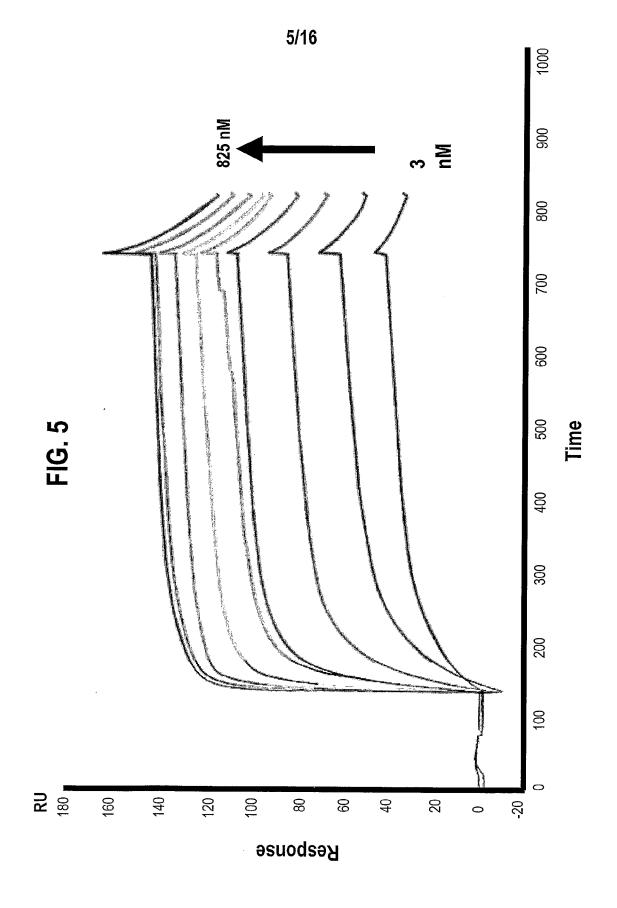


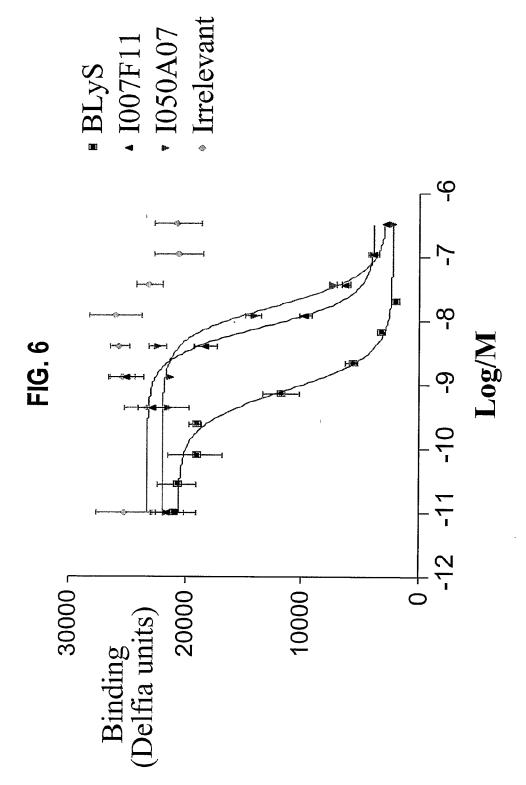




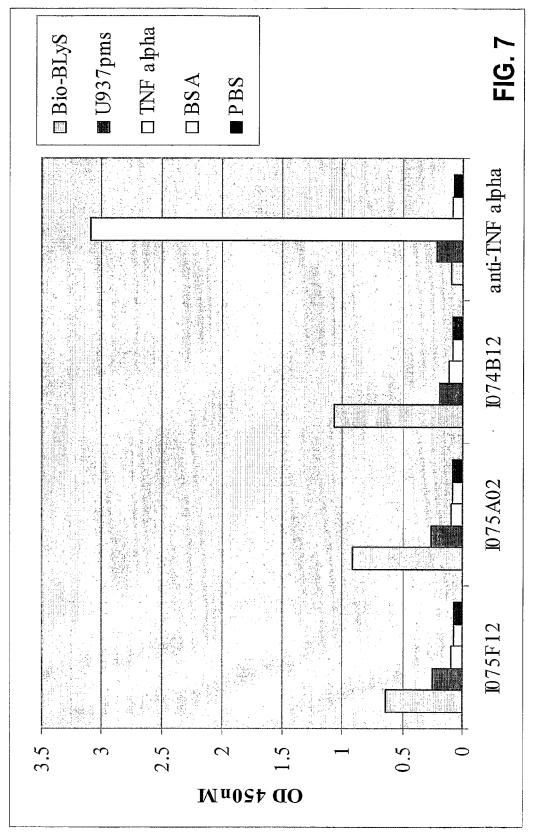


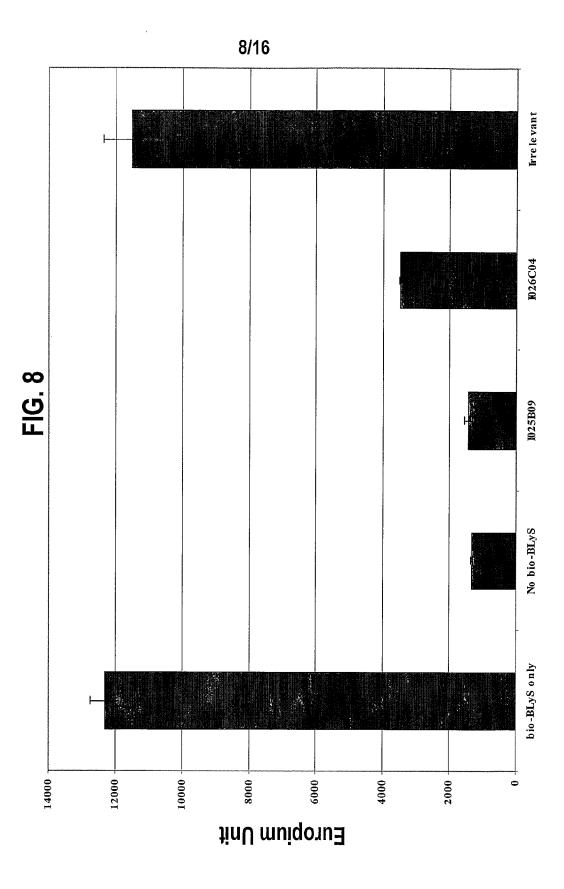




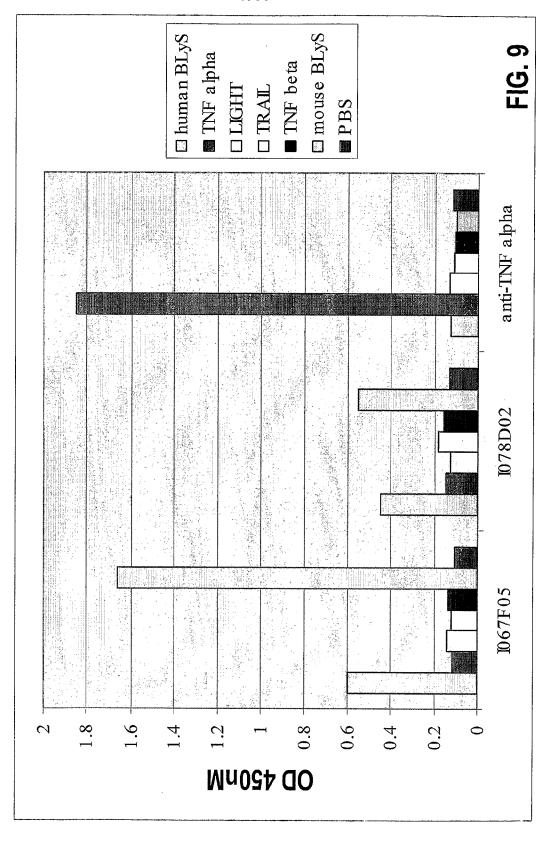


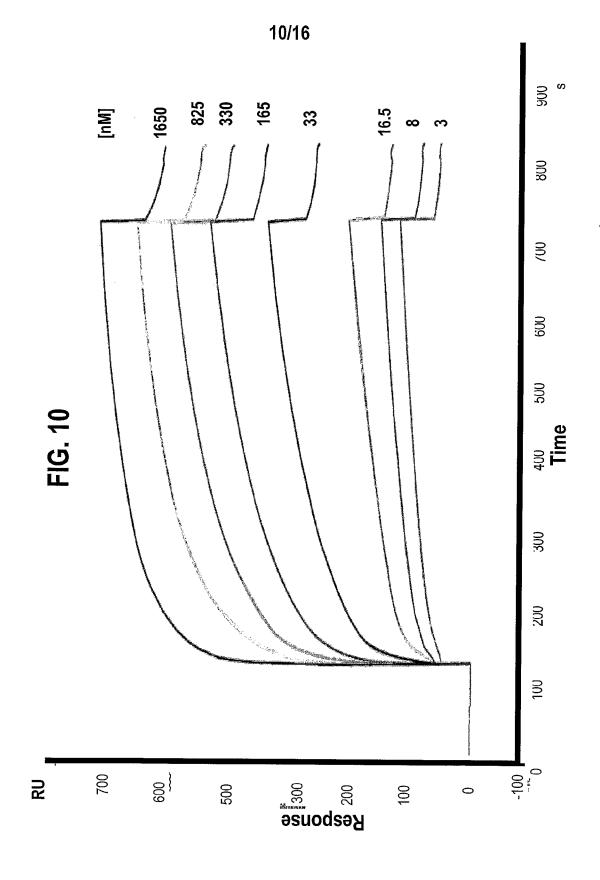


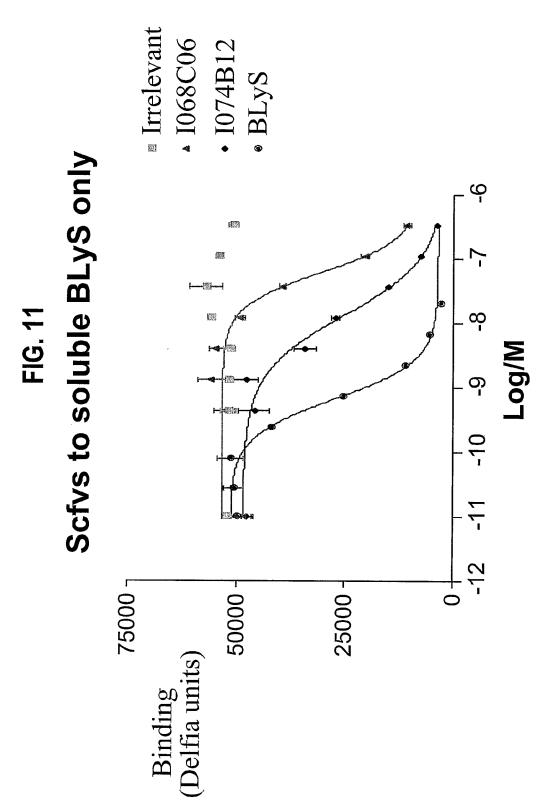




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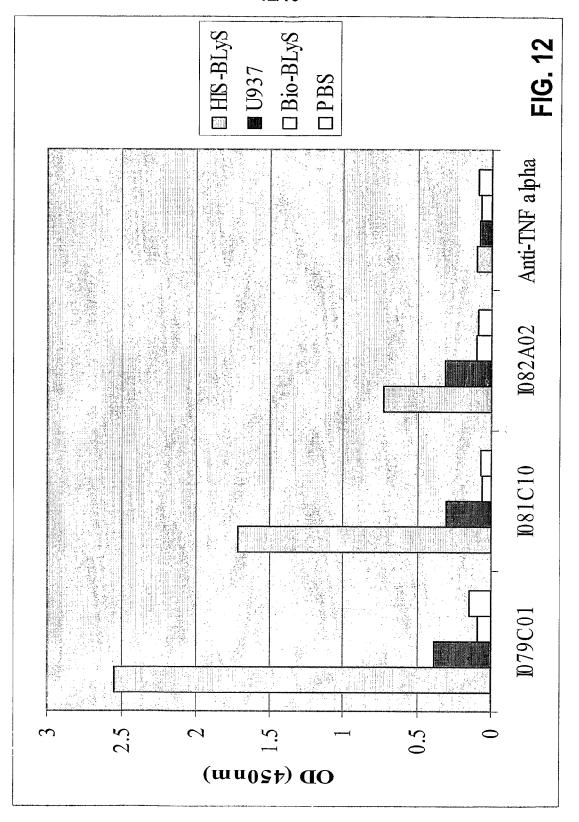




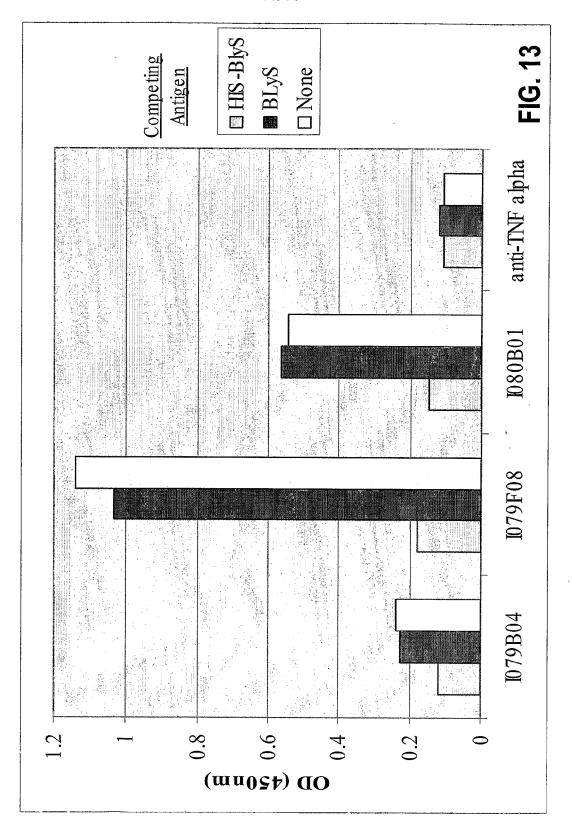


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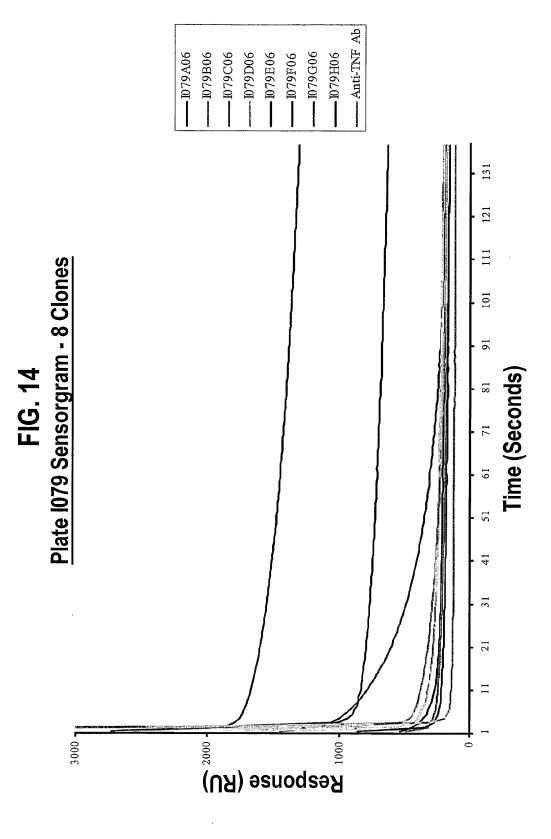
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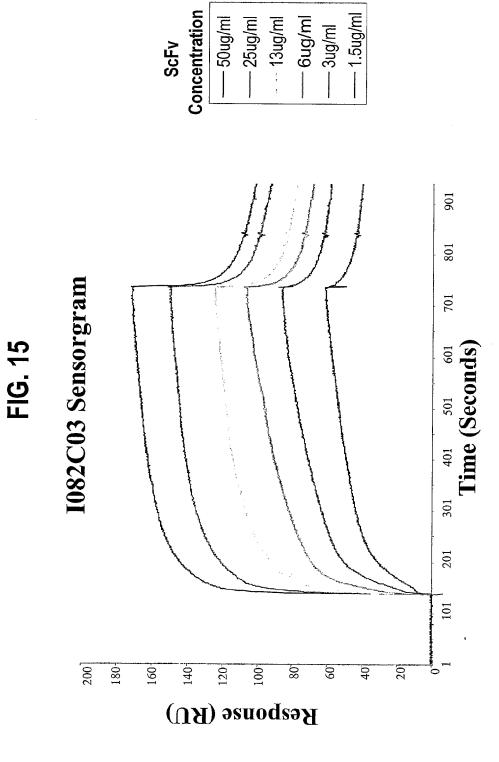
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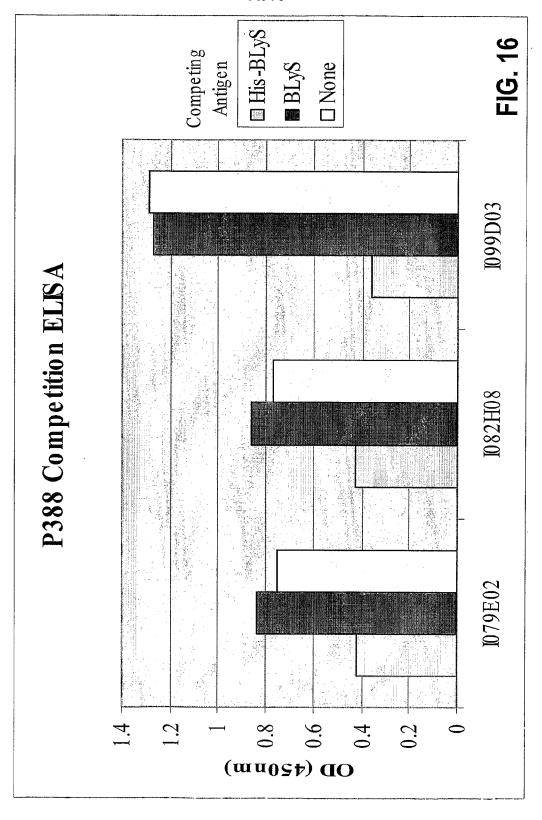
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<150> 60/331,469

<151> 2001-11-16

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Trp Ile Gly Trp Val Arg Gln Leu Pro Gly Lys Gly Leu Glu Trp Met 35 40 45

Gly Ile Ile Tyr Pro Gly Asp Ser His Thr Thr Tyr Ser Pro Ser Phe
50 60

Glu Gly His Val Asn Ile Ser Val Asp Lys Ser Ile Asn Thr Ala Tyr

65 70 75 80

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys 85 90 95

Ala Arg His Asp Asp Asp Val Leu Thr Gly Tyr Tyr Phe Glu Ser Trp
100 105 110

Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly 115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Gln Ser Val Leu Thr Gln Pro 130 135 140

Ala Ser Val Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr 145 150 155 160

Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser Trp Tyr Gln
165 170 175

Gln His Pro Gly Lys Ala Pro Lys Leu Met Ile Tyr Glu Gly Ser Lys 180 185 190

Arg Pro Ser Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn 195 200 205

Thr Ala Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp 210 215 220

Tyr Tyr Cys Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly 225 230 235

Gly Thr Lys Leu Thr Val Leu Gly 245

<210> 2

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<212> PRT

<213> Homo sapiens

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Asn Asn Asn 20 25 30

Ala Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met 35 40 45

- Gly Gly Ile Ile Pro Met Phe Gly Thr Ala Lys Tyr Ser Gln Asn Phe 50 55 60
- Gln Gly Arg Val Ala Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Ser 65 70 75 80
- Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys 85 90 95
- Ala Arg Ser Arg Asp Leu Leu Leu Phe Pro His Tyr Gly Met Asp Val
- Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser 115 120 125
- Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Phe Ser Ser Glu Leu 130 135
- Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr Val Arg Val 145 150 150
- Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln 165 170 175
- Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly Lys Asn Asn 180 185 190
- Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn 195 200 205
- Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp 210 215
- Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Trp Val Phe Gly 225 230 230
- Gly Gly Thr Glu Leu Thr Val Leu Gly 245

<210> 3

<211> 254

<212> PRT

<213> Homo sapiens

<400> 3
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
10
15

Ile Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ala Ser Asn 20 25 30

Gly Ala Ala Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu
35 45

Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Val Asp Tyr Ala 50 55

Val Ser Val Lys Ser Arg Ile Thr Ile Asn Pro Asp Thr Ser Lys Asn 65 70 75 80

Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val 85 90 95

Tyr Tyr Cys Ala Arg Asp Arg Tyr Asp Ile Leu Thr Gly Tyr Tyr Tyr 100 105

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser 115

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gln
130 135 140

Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Arg Gly Gln Ser 145 150 155 160

Ile Thr Ile Ser Cys Thr Gly Thr Thr Gly Asp Val Gly Gly Tyr Asp 165 170 175

Tyr Val Ser Trp. Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Leu Leu 180 . 185 . 190

Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe Ser 195 200 205

Ala Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu Gln 210

Ala Glu Asp Glu Ala Asp Tyr Phe Cys Ser Thr Tyr Ala Pro Pro Gly

225 230 235 240

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<210> 4

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4

Arg Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala

1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Asp 20 25 30

His Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met 35 40 45

Gly Trp Ile Ser Pro His His Gly Lys Thr Asn Tyr Ala Gln Lys Leu 50 55 60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Val Gln Met Asp Ser Glu Tyr Tyr Asp Leu Leu Thr Gly Ile 100 105 110

Asn Val Gly Pro Tyr Tyr Phe Asp Tyr Trp Gly Lys Gly Thr Leu Val 115 120 125

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly 130 135 140

Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu 145 150 155 160

Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr 165 . 170 . 175

Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val 180 185 190

Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser 195 200 205

Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln 210 215 220

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly 225 230 230

Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly 245 250 255

<210> 5

<211> 249

<212> PRT

<213> Homo sapiens

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val 50 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Lys Asp Gly Tyr Tyr Asp Ile Leu Thr Gly Tyr Ser Tyr Tyr Gly 100 105

Met Asp Val Trp Gly Gln Gly Pro Met Val Ala Val Ser Ser Gly Gly 115 120 125

Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ser Glu Leu 130 135

Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr Val Arg Ile

145 150 155 160

Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Thr Asn Trp Phe Gln
165 170 175

Gln Lys Pro Gly Gln Ala Pro Leu Leu Val Val Tyr Ala Lys Asn Lys
180 185 190

Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn 195 200 205

Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp 210 215 220

Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val Val Phe Gly 225 230 240

Gly Gly Thr Lys Leu Thr Val Leu Gly 245

<210> 6

<211> 251

<212> PRT

<213> Homo sapiens

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Ser Val Lys Val Ser Cys Lys Ala Ser Cly Gly Ser Phe Ser Ser His 20 25 30

Val Phe Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Gly Ile Thr Pro Lys Phe Ala Thr Pro Asn Tyr Ala Gln Lys Phe 50 60

Gln His Arg Val Thr Ile Thr Ala Asp Glu Leu Thr Arg Thr Val Phe 65 70 75 80

Met Asp Leu Ser Gly Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Gly Tyr Asp Ser Ser Ala Phe Arg Ala Phe Asp Ile Trp Gly 100 105 110

Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Ser Gly Gly 115 120

Gly Gly Ser Gly Gly Gly Ser Ala Gln Ser Val Leu Thr Gln Pro . 135

Pro Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr 155 145

Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val Gln Trp Tyr Gln 170 , 175 165

Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile His Gly Asn Asn Asn 180 185

Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr 195 200

Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln Asp Glu Asp Glu Ala Asp 210 215

Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser Leu Ser Phe Ser Gly Tyr Val 230 225

Phe Gly Thr Gly Thr Lys Val Thr Val Leu Gly 250 245

<210> 7

<211> 250

<212> PRT

<213> Homo sapiens

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser 5 . 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Asp Thr Phe Ser His Tyr . 20 25

Ala Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met 35

Gly Gly Ile Ile Pro Thr Phe Asn Ala Val Lys Tyr Ala Gln Lys Phe 55 60

Gln Gly Arg Ala Thr Ile Thr Ala Asp Gly Ser Thr Ser Thr Ala Tyr

65 70 75 80

Met Glu Leu Asn Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Thr Ala Pro Tyr Asp Leu Leu Thr His Tyr Phe His Tyr Phe Asp 100 105 110

Tyr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Ser Ser Glu 130 135 140

Leu Thr Gln Asp Pro Ala Val Ser Val Thr Leu Gly Gln Thr Val Arg 145 150 150

Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Pro Ser Trp Tyr 165 170 175

Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Pro Lys Asn 180 185

Ile Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly 195 200 . 205

Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala 210 215 220

Asp Tyr Tyr Cys Asn Ser Arg Ala Ser Ser Gly Asn His Tyr Val Phe 225 230 230 235 235

Ala Thr Gly Thr Lys Leu Thr Val Leu Gly
245 250

<210> 8

<211> 256

<212> PRT

<213> Homo sapiens

 $<\!400\!>$ 8 Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser 1 10 15

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Gly Leu Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met 35 40 45

- Gly Gly Val Ile Pro Ile Ser Ser Thr Ile Lys Tyr Gly Gln Lys Phe 50 55 60
- Gln Asp Arg Leu Thr Ile Ala Ala Asp Asp Leu Thr Asn Thr Thr Phe
 65 70 80
- Met Glu Leu Ser Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys 85 90 95
- Ala Arg Ala Ala Thr Thr Ser Gln Lys His Asn Lys Tyr Ala Tyr Tyr 100 105 110
- Phe Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser
- Ser Gly Gly Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Gly Ser 130 135
- Ala Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly 145 150 155 160
- Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly 165 170
- Tyr Asn Tyr Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys 180 185 190
- Leu Met Ile Tyr Glu Val Ser Asn Arg Pro Ser Gly Val Ser Asn Arg 195 200 205
- Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly 210 215 220
- Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser 225 230 230 235
- Ser Ser Thr Leu Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly 245 250

<210> 9

<211> 251

<212> PRT

<213> Homo sapiens

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Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
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Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

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Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 10

<211> 251

<212> PRT

<213> Homo sapiens

<400> 10

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Val Trp 100 105 110

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

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<213> Homo sapiens

<400> 11

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 . 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Val Trp 100 105 110

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 · 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Lys Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

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<213> Homo sapiens

<400> 12

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Arg Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 13

<211> 251

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<213> Homo sapiens

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Gly Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Lys Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 14

<211> 251

<212> PRT

<213> Homo sapiens

<400> 14
Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30 .

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Arg Tyr Val Phe Gln Val Trp 100 105 110
- Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155 160
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 15

<211> 251

<212> PRT

<213> Homo sapiens

<400> 15
Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Glm Ala Pro Gly Glm Gly Leu Glu Trp Val 35 40 45 .

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Gly Tyr Val Phe Gln Val Trp 100 105 110

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 16

<211> 251

<212> PRT

<213> Homo sapiens

<400> 16

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Arg Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Lys Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 17

<211> 251

<212> PRT

<213> Homo sapiens

<400> 17

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Gly Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 18

<211> 251

<212> PRT

<213> Homo sapiens

<400> 18

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Cly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Arg Tyr Val Phe Gln Val Trp 100 105 110

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser-Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Lys Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 19

<211> 251

<212> PRT

<213> Homo sapiens

<400> 19

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Arg Tyr Val Phe Gln Val Trp
100 105 110

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190 -

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

<210> 20

<211> 251

<212> PRT

<213> Homo sapiens

<400> 20

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Gly Tyr Val Phe Gln Val Trp 100 105 110

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Lys Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 21

<211> 251

<212> PRT

<213> Homo sapiens

<400> 21

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Gly Tyr Val Phe Gln Val Trp
100 105 110

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160.

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

240 235 230 225

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg , 245

<210> 22

<211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala . 10 . 5

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 125 115,

Gly Ser Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr . 180

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220 .

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 23

<211> 251

<212> PRT

<213> Homo sapiens

<400> 23

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 ,220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys. Arg 245 250

<210> 24

<211> 251

<212> PRT

<213> Homo sapiens

<400> 24

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70. 75

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Val Trp
100 105 110

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 25

<211> 251

<212> PRT

<213> Homo sapiens

<400> 25

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

The Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Val Trp 100 \, 105

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 26

<211> 251

<212> PRT

<213> Homo sapiens

<400> 26

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 . 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Arg Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 27

<211> 251

<212> PRT

<213> Homo sapiens

<400> 27

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 . 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Arg Tyr Val Phe Gln Tyr Phe
100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 28

<211> 251

<212> PRT

<213> Homo sapiens

<400> 28

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Ile Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 29

<211> 251

<212> PRT

<213> Homo sapiens

<400> 29

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Ala Arg Pro Phe Tyr Asp Ile Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \,$ $135 \,$ $140 \,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg .

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 30

<211> 251

<212> PRT

<213> Homo sapiens

<400> 30

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Ile Leu Thr Arg Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \,$ $135 \,$ $140 \,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 31

<211> 251

<212> PRT

<213> Homo sapiens

<400> 31

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 . 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Ile Leu Thr Arg Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leü Ser Pro Gly Lys Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 32

<211> 251

<212> PRT

<213> Homo sapiens

400> 32

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
- Ala Arg Pro Phe Tyr Asp Ile Leu Thr Arg Tyr Val Phe Gln Tyr Phe 100 105 110
- Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155 160
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 33

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Ile Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg $245 \ \ \, 250$

<210> 34

<211> 251

<212> PRT

<213> Homo sapiens

<400> 34

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20
30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Arg Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 195 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 35

<211> 251

<212> PRT

<213> Homo sapiens

<400> 35

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35
40
45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Ile Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \\ {\rm 135} \\ {\rm 140}$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 . 185 . 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

<210> 36

<211> 251

<212> PRT

<213> Homo sapiens

<400> 36

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ 25 \\ 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu beu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Ile Leu Thr Arg Tyr Val Phe Gln Tyr Phe 100 . 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 37

<211> 251

<212> PRT

<213> Homo sapiens

<400> 37

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45 ,

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe
100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 38

<211> 251

<212> PRT

<213> Homo sapiens

<400> 38

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Gly Tyr Tyr 100 105 110

Leu Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \hspace{1.5cm} 135 \hspace{1.5cm} 140 \hspace{1.5cm}$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 . 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 . 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

<210> 39

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85. 90 . 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Ala Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 $$ $$ 250

<210> 40

<211> 251

<212> PRT

<213> Homo sapiens

<400> 40

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pró Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Val Trp
100 105 110

Val Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 41

<211> 251

<212> PRT

<213> Homo sapiens

<400> 41

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 . 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Ala Arg Pro Phe Tyr Asp Ile Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 . 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 42

<211> 251

<212> PRT

<213> Homo sapiens

<400> 42

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe $50 \hspace{1cm} 55 \hspace{1cm} 60$

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Lys Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 43

<211> 251

<212> PRT

<213> Homo sapiens

<400> 43

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

70 80 75 65 Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90 Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110 Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125 Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 150 145 Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 165 Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185 180 Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200 Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215 220 Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235 230 225 Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250 <210> 44 <211> 251 <212> PRT <213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

10

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 . 230 . 230 . 240

<210> 45

<211> 251

<212> PRT

<213> Homo sapiens

<400> 45

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Arg Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg $245 \hspace{1.5cm} \text{250}$

<210> 46

<211> 251

<212> PRT

<213> Homo sapiens

<400> 46

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 . 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Gly Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 47

<211> 251

<212> PRT

<213> Homo sapiens

<40.0> 47

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Pro Arg Val 100 105 110

Ile Pro Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \\ {\rm 135} \\ {\rm 140} \\ {\rm 140}$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 48

<211> 250

<212> PRT

<213> Homo sapiens

<400> 48

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Cys Arg Pro His
100 105 110

Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 49

<211> 250

<212> PRT

<213> Homo sapiens

<400> 49

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Arg Cys Pro Tyr 100 105 110

Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala
165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Met Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg \$245\$

<210> 50

<211> 250

<212> PRT

<213> Homo sapiens

<400> 50
Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 . 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Arg Pro Asp 100 105 110

Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150 155

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 51

<211> 250

<212> PRT

<213> Homo sapiens

<400> 51 Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Lys Ser Met Pro 100 105 110

Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe

225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 52

<211> 250

<212> PRT

<213> Homo sapiens

<400> 52

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Pro Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Thr Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Pro Phe Leu Tyr 100 105 110

Cys Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 53

<211> 250

<212> PRT

<213> Homo sapiens

<400> 53

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Pro Val Pro Ser 100 · 105 110

Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Ala Leu Ser Leu Ser Pro Gly Glu Arg Ala

145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
. 180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu
195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 54

<211> 250

<212> PRT

<213> Homo sapiens

<400> 54

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Gly Ile His Gly 100 105 110

Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu
195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 230

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 55

<211> 251

<212> PRT

<213> Homo sapiens

<400> 55

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ \$40\$ \$45\$

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Pro Cys Ser Pro 100 105 110

Pro Arg Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 56

<211> .250

<212> PRT

<213> Homo sapiens

<400> 56

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Cys Tyr Pro Pro
100 105 110

Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 57

<211> 250

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Pro Leu Leu 100 105 110

Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe

225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg $245 \ \ \,$ 250

<210> 58

<211> 250

<212> PRT

<213> Homo sapiens

<400> 58

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ala Leu Tyr Arg 100 105 110

Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 59

<211> 250

<212> PRT

<213> Homo sapiens

<400> 59

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Arg Ala Ser Phe 100 105 110

Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala

145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 60

<211> 250

<212> PRT

<213> Homo sapiens

<400> 60

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 - 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Cys Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Cys Thr Pro Val 100 105 110

Pro Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 135

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 155 150

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 - 185

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 200 195

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 215

Phe Ala Ala Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 235 230

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 61

<211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40.

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Trp Pro Ser Phe 100 105 110

Phe Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 62

<211> 250

<212> PRT

<213> Homo sapiens

<400> 62

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Thr Pro Arg Gly 100 105 110

Tyr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu . 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 63

<211> 250

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ser Ser Leu Leu 100 105 110

Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe

225 230 235 240

<210> 64

<211> 251

<212> PRT

<213> Homo sapiens

<400> 64

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Pro Leu Leu Pro 100 105 110

Leu Cys Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 . 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 65

<211> 251

<212> PRT

<213> Homo sapiens

<400> 65

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Pro Pro Pro Ser 100 105 110

Phe Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 66

<211> 250

<212> PRT

<213> Homo sapiens

<400> 66

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ 25 \\ 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 $^{\circ}$ 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys \$85\$ 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Pro Thr Ser Thr 100 105 110

Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150 150

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Thr 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 230 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 67

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

75 80 70 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Ser Cys Ser 105

Trp Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 120 115

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135

Thr Leu Thr Gln Ser Leu Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 155 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 . 170

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 220 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235 230 225

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 250 245

<210> 68

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala . 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 .

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ser Ala Leu Pro 100 100 105
- Pro Pro Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 69

<211> 250

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Cys Arg His Leu 100 105 110

Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe

225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 70 <211> 251

<212> PRT

<213> Homo sapiens

 $<\!400\!>70$ Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Val Ser Phe Pro

Ser Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215 220 210

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235 230

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 71

<211> 251 <212> PRT

<213> Homo sapiens

<400> 71 Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25

Gly Val Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe - 55 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 70 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Met Gly Val Thr 105 100

Pro Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 125 120 115

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 140 . 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

160 155 150 145

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 175 165

Ala Trp Tyr Gln Arg Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 72

<211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 2.0

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 70 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Phe Arg Pro 105

Val Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 120 115

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 155 160 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 175 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Ser Arg Thr 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg . 250 245

<210> 73

<210> 73 <211> 250 <212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 . 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Pro Ser Val Gly 100 105

Gly Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 74

<211> 250

<212> PRT

<213> Homo sapiens

<400> 74
Gln Val Gln Leu Val Gln Pro Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Pro Pro Thr Arg
100 105 110

His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 75

<211> 250

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Arg Ser Arg 100 105 110

Asp Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe

240 235 230 225

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 76

<211> 250

<212> PRT

<213> Homo sapiens

<400> 76

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25

Gly Ile Ser Arg Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 70 ·

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Pro Leu Leu Pro 100 105

Pro Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120

Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr Thr 135 . 130

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 155

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 200

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 215 210

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 235 230

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 250 245

<210> 77

<211> 250

<212> PRT

<213> Homo sapiens

<400> 77

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Arg Cys Val 100 105

Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr Thr 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala

145 150 155 . 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu
195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 230 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 78

<211> 250

<212> PRT

<213> Homo sapiens

<400> 78

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 . 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val His Pro Ser Arg

Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 120 125 115

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 135

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 155 150

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 170 / 165

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 185 180

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 220 215 210

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 235 230

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 79

<211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40 35

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Arg Leu Pro 100 105 110

Pro Gln Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 80

<211> 250

<212> PRT

<213> Homo sapiens

<400> 80 . Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 $$ 5 $$ 10 $$ 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Gly Pro Tyr Gly 100 105 110
- Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120
- Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135
- Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150 160
- Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175
- Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
 180 185 190
- Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Lys 195 200 205
- Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220
- Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235
- Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 81

<211> 250

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Thr Pro Cys 100 105

Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu
195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe

240

235 230 225

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 82

<211> 244

<212> PRT

<213> Homo sapiens

<400> 82

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg 10

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr 25

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Val 40 35

Ser Ala Ile Thr Trp Asn Ser Gly His Ile Asp Tyr Ala Asp Ser Val 55 50

Glu Gly Arg Phe Ala Val Ser Arg Asp Asn Ala Lys Asn Ala Leu Tyr 70 65

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys

Thr Lys Ala Ser Tyr Leu Ser Thr Ser Ser Ser Leu Asp Asn Trp Gly 105 100

Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Ser Gly Gly 115

Gly Gly Ser Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro 130

Ser Ser Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg 150 155 145

Ala Ser Gln Gly Ile Arg Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro 165 170 175

Gly Lys Ala Pro Lys Leu Leu Ile Tyr Ala Ala Ser Thr Leu Gln Ser 190 185 180

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr 195 200 205

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys 210 215 220

Gln Lys Tyr Asn Ser Ala Pro Tyr Ala Phe Gly Gln Gly Thr Lys Val 225 230 235 240

Glu Ile Lys Arg

<210> 83

<211> 251

<212> PRT

<213> Homo sapiens

<400> 83 Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 .45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Thr Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 84

<211> 251

<212> PRT

<213> Homo sapiens

 $<\!\!400\!\!>$ 84 Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Gly Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Pro Phe Leu
100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 85

<211> 251

<212> PRT

<213> Homo sapiens

<400> 85

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Ile Tyr 100 105 110

Pro His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 86

<211> 251 '

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Asn Tyr Val Phe Glu Tyr Tyr 100 105 110
- Ala Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr $130 \,$ $135 \,$ $140 \,$
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 87

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Leu Tyr Tyr 100 105 110

Leu His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 102

235 240 230 225

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 88

<211> 251

<212> PRT

<213> Homo sapiens

<400> 88

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr - 70

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 105

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 120 115

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 140 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 155 150 145

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185 180

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile-Ser Arg Leu Glu Pro Glu 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Pro Thr 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 89

<211> 251

<212> PRT

<213> Homo.sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 10 15 1 5

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25 20

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40 35

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 75 , 70 .

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Met Tyr Phe 105 100

Pro His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 125 120 115

Gly Ser Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 135 140 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

150 155 160 145

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215 220 210

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 230 235 240 225

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 90

<211> 251

<212> PRT

<213> Homo sapiens .

<400> 90

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 5

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40 45 35

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 70 75 65 .

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Phe Phe Tyr 105 110 100,

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 . 250

<210> 91

<211> 251

<212> PRT

<213> Homo sapiens

<400> 91

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 225 220 .

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Val Ile Arg Arg 245 250

<210> 92

<211> 251

<212> PRT

<213> Homo sapiens

<400> 92

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 . 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Asp Tyr Tyr 100 105 110

Ala Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 93

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Gly Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75.

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Pro Phe Leu 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 109

230 235 240 225

Phe Gly Gln Gly Thr Arg Leu Glu Ile Ser Arg 245 250

<210> 94

<211> 251

<212> PRT

<213> Homo sapiens

<400> 94

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25

Ser Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 70

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 - 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 105

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 125 120

Gly Ser Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 135 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 155 145 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 1.70

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235 230

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 95

<211> 251

<212> PRT

<213> Homo sapiens

<400> 95

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 10

Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Phe Ser Asn His 25

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 60 55 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 70 75 80 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 - 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Glu Tyr Tyr 105 110 100

Ser Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly . 115 120 . 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

155 160 150 -145

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235 240 230

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 96

<211> 251

<212> PRT

<213> Homo sapiens

<400>.96

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25 20

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 60 50 . 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 70 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 . 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115

Gly Ser Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 155 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185 . 190 180

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200 195

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser 'Arg Leu Glu Pro Glu 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235 230 225

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 97

<211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 5 . 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Asn His 25 20.

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35

Gly Trp Ile Ser Gly His Asp Asp Ser Ala Lys Tyr Ala Gln Lys Phe 55 60 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 98

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

Gly Trp Ile Ser Gly Tyr Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Glu Phe Tyr 100 105 110

Leu Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 99

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Lys Arg 145 150 150

Ala Thr Leu Pro Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 . 170 . 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 100

<211> 250

<212> PRT

<213> Homo sapiens

<400> 100

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Pro Leu Asp 100 105 110

Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 150

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala
165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 101

<211> 251

<212> PRT

<213> Homo sapiens

<400> 101

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1.0

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25 2.0

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Glu Tyr Ala Gln Lys Phe . 60 50 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr . 75

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90 ` 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Tyr Phe Tyr 100 105

Pro Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 120 125 115

Gly Ser Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 135 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

160 155 . 1,50 145

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 175 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200 195

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 220 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 102

<211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr 75' 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 105 100

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 120 115

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 155 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185 180

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu . 220 210 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 103

<211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 15 ' 10 1 5

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 . 25

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 . 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

<210> 104

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Thr Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 105

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Glu Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 123

240 235 230 225

Phe Gly Gln Gly Thr Arg Leu Glu Val Lys Arg 245 250

<210> 106

<211> 251

<212> PRT

<213> Homo sapiens

<400> 106

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 75 70

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys . 85 , 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Tyr Tyr 105 100

Ala Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 125 120

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 150 . 155 145

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 240

Phe Gly Gln Gly Thr Arg Leu Glu IIe Lys Arg 245 250

<210> 107

<211> 250

<212> PRT

<213> Homo sapiens

<400> 107

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Pro Pro Ser 100 105 110

Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 135 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala

145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly 180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu 195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 215 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 108

<211> 251

<212> PRT

<213> Homo sapiens

<400> 108

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95 ,

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Pro Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 . 250

<210> 109

<211> 251

<212> PRT

<213> Homo sapiens

<400> 109

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Arg Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 110

<211> 251

<212> PRT

<213> Homo sapiens

<400> 110
Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe . 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 11:1

<211> 248

<212> PRT

<213> Homo sapiens

<400> 111 Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala Ser Val Lys $1 \ 5 \ 10 \ 15$

Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His Gly Ile Ser 20 25 30

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val Gly Trp Ile 35 40 45

Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe Gln Gly Arg 50 55 60

Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr Ile Glu Leu 65 70 75 80

Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg Pro 85 90 95

Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe Asp His Trp 100 105 110

Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly 115 120 , 125

Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr Thr Leu Thr 130 135 140

Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu 145 150 155 160

Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala Trp Tyr 165 170 175

Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly Thr Ser 180 185 190

Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu Ser Gly 195 200 205

Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala 210 215 220

Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe Gly Gln

225 230 235 240

Gly Thr Arg Leu Glu Ile Lys Arg

<210> 112

<211> 251

<212> PRT

<213> Homo sapiens

<400> 112

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 . 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Tyr Tyr 100 105 110

Leu Tyr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 . 185 . 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 113

<211> 251

<212> PRT

<213> Homo sapiens

<400> 113

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Ile Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 170

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 114

<211> 251

<212> PRT

<213> Homo sapiens

<400> 114

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Ile Val Thr Val Ser Ser Gly Gly Gly 120

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 155 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200 205 195

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp Thr Ser Pro Arg Thr 235 225 230

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 115

<211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 116

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe
 100 105 110
- Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115
- Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Ala Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 117

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Asp Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Arg Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Ala Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Cys Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

230 240 235 225

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 250 245

<210> 118

<211> 251

<212> PRT

<213> Homo sapiens

<400> 118 Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 75 70

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 · 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 105

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 120 115

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 155 145 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185 180

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Ser Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 . 250

<210> 119

<211> 251

<212> PRT

<213> Homo sapiens

<400> 119

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 \$135\$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Asn Arg 245 250

<210> 120

<211> 251

<212> PRT

<213> Homo sapiens

<400> 120

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125 .

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr . 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Val Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 . 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 121

<211> 251

<212> PRT

<213> Homo sapiens

<100× 121

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala.

1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe His Tyr Tyr
100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 122

<211> 251

<212> PRT

<213> Homo sapiens

<400> 122

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Pro Val Tyr 100 105 110
- Tyr Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
 145 150 155 160
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu
 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 235
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 123

<211> 251

<212> PRT

<213> Homo sapiens

 $<\!400\!>$ 123 Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Gly Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Phe Ile 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

240 235 230 225

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 124

<211> 251

<212> PRT

<213> Homo sapiens

<400> 124

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala . 5 . 10

Ser Val Lys Val Pro Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys · 95 90 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 , 105

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 120 115

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185 190 180

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser . 200 195

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215 210

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235 230

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 125

<211> 251

<212> PRT

<213> Homo sapiens

<400> 125

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 5 , 10

Ser Val Lys Val Pro Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 95 90 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 105 100

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly ^ا 120 115

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135 130

Thr Leu Thr Gln Cys Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 126

<211> 251

<212> PRT

<213> Homo sapiens

<400> 126

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala His Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Asp Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 127

<211> 251

<212> PRT

<213> Homo sapiens

<400> 127

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe His Tyr Tyr 100 105 110

Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 128

<211> 251

<212> PRT

<213> Homo sapiens

<400> 128
Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Gly Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 129

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val His Glu Phe Phe 100 105 110

Ser Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

. <210> 130

<211> 251

<212> PRT

<213> Homo sapiens

<400> 130

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Ser Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 131

<211> 251

<212> PRT

<213> Homo sapiens

<400> 131

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25 2.0

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 70 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys . 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 · 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Lys Thr 135 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Gly Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 132

<211> 251

<212> PRT

<213> Homo sapiens

<400> 132

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

Gly Trp Ile Ser Gly Arg Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg $245 \ \ 250 \ \$

<210> 133

<211> 251

<212> PRT

<213> Homo sapiens

<400> 133

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 .5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

80 75 70 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 90 85

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 120 115

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 150 , 155

Ala Thr Leu Ser Cys Arg Ala Ser Arg Ser Val Thr Arg Gly Trp Val 170 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185

Gly Thr Ser Arg Arg Ala Ala Gly Val Pro Asp Arg Phe Ser Gly Ser 205 195 200

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215 210

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235 225

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 134

<211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Thr 1 5

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25 20 .

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

- Gly Trp Ile Ser Gly His Asp Gly Ser Thr Lys Tyr Ala Gln Lys Phe 50 55
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110
- Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115
- Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155 160
- Ala Thr Leu Ser Cys Lys Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 135

<211> 251

<212> PRT

<213> Homo sapiens

<400> 135 Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 25

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val . 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 75

Ile Glu Leu Arg Ser Leu Lys Pro Asp Asp Thr Ala Val Tyr Tyr Cys 85 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 105

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 125 120 115

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135 130

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 155 145 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200 195

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 158

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 136

<211> 251

<212> PRT

<213> Homo sapiens

<400> 136

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp His $20 \\ 25 \\ 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200 195

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 235 240 230

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 137

<211> 251

<212> PRT

<213> Homo sapiens

<400> 137

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 70 65

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 105 100

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 135 130 ·

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Ala Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 138

<211> 251

<212> PRT

<213> Homo sapiens

<400> 138

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Ala Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asn Arg Phe Ser Asp Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Tyr Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 139

<211> 251

<212> PRT

<213> Homo sapiens

<400> 139

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Arg Arg 245 250

<210> 140

<211> 250

<212> PRT

<213> Homo sapiens

<400> 140

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Arg Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ 25 \\ 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Ala Leu Asp 100 105 110

Leu Trp Gly Gln Gly Thr Met Val Asn Val Ser Ser Gly Gly Gly Gly 115 120 125

Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr 130 140

Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala 145 150 155 160

Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val Ala 165 170 175

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr Gly
180 185 190

Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser Glu
195 200 205

Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp 210 225 220

Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr Phe 225 230 235 240

Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg

<210> 141

<211> 251

<212> PRT

<213> Homo sapiens

<400> 141

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gly Tyr Tyr 100 105 110

Ser Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 . 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Ile Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225

230

235

240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 142

<211> 251

<212> PRT

<213> Homo sapiens

<400> 142

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Gly Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 143

<211> 251

<212> PRT

<213> Homo sapiens

<400> 143

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Lys Tyr Tyr 100 105 110

Thr Asp Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 . 185 . 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 144

<211> 251

<212> PRT

<213> Homo sapiens

<400> 144

Gln Val Gln Leu Val Gln Ser Gly Val Glu Ala Arg Lys Pro Gly Ala
1 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 145

<211> 251

<212> PRT

<213> Homo sapiens

<400> 145

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

 65
 70
 75
 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Met His Ala Tyr 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Ser Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Gln Thr 225 230 235 240

<210> 146

<211> 251

<212> PRT

<213> Homo sapiens

<400> 146

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala . 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 . 40 45

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60 .
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe His Tyr Leu 100 105 110
- Pro Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155 160
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 147

<211> 251

<212> PRT

<213> Homo sapiens

<400> 147

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Pro Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 148

<211> 251

<212> PRT

<213> Homo sapiens

<400> 148

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Cys Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Glu Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Thr Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Asp Gln Ala Pro Arg Leu Leu Ile Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Asp Ser 195 . 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 149

<211> 251

<212> PRT

<213> Homo sapiens

<400> 149

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Ala Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 . 250

<210> 150

<211> 251

<212> PRT

<213> Homo sapiens

<400> 150

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Glu Tyr Phe 100 105 110

Ser Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 151

<211> 251

<212> PRŤ

<213> Homo sapiens

<400> 151

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Cys Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 152

<211> 251

<212> PRT

<213> Homo sapiens

<400> 152

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Phe Tyr Tyr 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 153

<211> 251

<212> PRT

<213> Homo sapiens

<400> 153

Gln Val Gln Leu Val Gln Pro Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 154

<211> 251

<212> PRT

<213> Homo sapiens

<400> 154

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 .10 .15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly Arg Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Ala Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asn Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu
210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu IIe Lys Arg 245 250

<210> 155

<211> 251

<212> PRT

<213> Homo sapiens

<400> 155

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys His Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \,\,$ $135 \,\,$ $140 \,\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 . 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 . 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 156

<211> 251

<212> PRT

<213> Homo sapiens

<400> 156

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Val Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Asp Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Arg Arg 245 250

<210> 157

<211> 251

<212> PRT

<213> Homo sapiens

<400> 157

Gln Ile Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

.Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Asp Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 158

<211> 251

<212> PRT

<213> Homo sapiens

<400> 158

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 159

<211> 251

<212> PRT

<213> Homo sapiens

<400> 159

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Phe Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 160

<211> 251

<212> PRT

<213> Homo sapiens

<400> 160

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Ala Tyr Tyr 100 105 110

Pro Asp Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 161

<211> 251

<212> PRT

<213> Homo sapiens

<400> 161

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

- Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45
- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
 50 55 60
- Gln Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110
- Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130\,$
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg . 245 250

<210> 162

<211> 251

<212> PRT

<213> Homo sapiens

<400> 162

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185. 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Asp Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 163

<211> 251

<212> PRT

<213> Homo sapiens

<400> 163

Gln Val Gln Leu Val Gln Ser Gly Val Glu Glu Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr $130\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Gly Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 164

<211> 244

<212> PRT

<213> Homo sapiens

<400> 164

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr 20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Val 35 40 45

Ser Ala Ile Thr Trp Asn Ser Gly His Ile Asp Tyr Ala Asp Ser Val 50 60

Glu Gly Arg Phe Ala Val Ser Arg Asp Asn Ala Lys Asn Ala Leu Tyr 65 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Lys Ala Ser Tyr Leu Ser Thr Ser Ser Ser Leu Asp Asn Trp Gly 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly 115 120 125

Gly Gly Ser Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro 130 135 140

Ser Ser Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg
145 150 155 160

Ala Ser Gln Gly Ile Arg Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro 165 170 175

Gly Lys Ala Pro Lys Leu Leu Ile Tyr Ala Ala Ser Thr Leu Gln Ser 180 185 190

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr 195 200 205

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys 210 215 220

Gln Lys Tyr Asn Ser Ala Pro Tyr Ala Phe Gly Gln Gly Thr Lys Val 225 230 $$ 235 $$ 240

Glu Ile Glu Arg

<210> 165

<211> 251

<212> PRT

<213> Homo sapiens

<400> 165
Gln Val Gln Leu Val Gln Ser Gly Val Lys Val Lys Lys Pro Gly Ala
1 5 10 15

- Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30
- Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45
- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Pro Val Tyr 100 105 110
- Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \,$ $135 \,$ $140 \,$
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 166

<211> 251

<212> PRT

<213> Homo sapiens

<400> 166

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 $$ 10 $$ 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Ala His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130\,$ $135\,$ $140\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 167

<211> 251

<212> PRT

<213> Homo sapiens

<400> 167

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 . 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Gly Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 168

<211> 251

<212> PRT

<213> Homo sapiens

<400> 168

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 $^{\circ}$ 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asn Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 169

<211> 251

<212> PRT

<213> Homo sapiens

<400× 169

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 . 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Leu Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 170

<211> 251

<212> PRT

<213> Homo sapiens

<400> 170

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ 25 \\ 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Phe Tyr Tyr 100 105 110
- Pro Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 171

<211> 251

<212> PRT

<213> Homo sapiens

<400> 171

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr
130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 172

<211> 251

<212> PRT

<213> Homo sapiens

<400> 172

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys \$85\$ 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Glu Val Tyr 100 105 110

His Pro Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 173

<211> 251

<212> PRT

<213> Homo sapiens

<400> 173

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Ala Pro Leu 100 105 110

Val Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 174

<211> 251

<212> PRT

<213> Homo sapiens

<400> 174

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Ala Tyr 100 105 110

Ala Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 175

<211> 251

<212> PRT .

<213> Homo sapiens

<400> 175

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Gly Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala His Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Ala Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 176

<211> 251

<212> PRT

<213> Homo sapiens

<400> 176

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Leu Tyr Tyr 100 105 110

Leu His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr $130\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Gln Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 177

<211> 251

<212> PRT

<213> Homo sapiens

<400> 177

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Glu Phe Leu 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr , 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 207

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 178

<211> 251

<212> PRT

<213> Homo sapiens

<400> 178

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60.

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Arg Pro Phe Tyr 100 105 110

Ala His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240 .

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 179

<211> 251

<212> PRT

<213> Homo sapiens

<400> 179

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr
130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Gly Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 180

<211> 251

<212> PRT

<213> Homo sapiens

<400> 180

Gln Ala Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Phe Tyr 100 105 110

Arg Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 181

<211> 251

<212> PRT

<213> Homo sapiens

<400> 181

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Val Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 182

<211> 251

<212> PRT

<213> Homo sapiens

<400> 182

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 183

<211> 251

<212> PRT

<213> Homo sapiens

<400> 183

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Gly Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val His Glu Phe Phe 100 105 110

Ser Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 184

<211> 251

<212> PRT

<213> Homo sapiens

<400> 184

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Arg Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Met Gln Phe Phe 100 105 110

Pro Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 185

<211> 251

<212> PRT

<213> Homo sapiens

<400> 185

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe $50 \ \cdot \ 55 \ 60$

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Ser Phe Tyr 100 105 110

Pro Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr $130\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 186

<211> 251

<212> PRT

<213> Homo sapiens

<400> 186

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Tyr Tyr Tyr 100 105 110

Ala Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \,$ $135 \,$ $140 \,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 .170 175.

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Leu Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Ala Gly Val Pro Asp Arg Phe Ser Asp Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Cys Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 187

<211> 251

<212> PRT

<213> Homo sapiens

<400> 187

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser His Arg Leu Leu Met Tyr
180 185 190

Gly Thr Phe Arg Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Asp Ser 195 200 205

Glu Ser Gly Thr Asp Phe Ser Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Ser Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg

<210> 188

<211> 251

<212> PRT

<213> Homo sapiens

<400> 188

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val · 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Asp Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr $130\,$ $135\,$ $140\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 . 250

<210> 189

<211> 251

<212> PRT

<213> Homo sapiens '

<400> 189

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Lys Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe \cdot 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr $130\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 . 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 190

<211> 251

<212> PRT

<213> Homo sapiens

<400> 190

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Phe Tyr 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 . 120 . 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 191

<211> 251

<212> PRT

<213> Homo sapiens

<400> 191

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Gln Tyr Tyr 100 105 110

Val Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly . 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 192

<211> 251

<212> PRT

<213> Homo sapiens

<400> 192

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Leu Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Ala 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg \$245\$

<210> 193

<211> 251

<212> PRT

<213> Homo sapiens

<400> 193

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Val Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg $245 \ \ 250 \ \$

<210> 194

<211> 251

<212> PRT

<213> Homo sapiens

<400> 194

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Val Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 . 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 195

<211> 251

<212> PRT

<213> Homo sapiens

<400> 195

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 196

<211> 251

<212> PRT

<213> Homo sapiens

<400> 196

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Die Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Pro Val Trp
100 105 110

Val Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr
130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Asp Gln Ala Ser Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Ser Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 197

<211> 251

<212> PRT

<213> Homo sapiens

<400> 197

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe
100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr
130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Thr Thr Gly Val Pro Gly Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 198

<211> 251

<212> PRT

<213> Homo sapiens

<400> 198

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Gly Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Pro Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 199

<211> 251

<212> PRT

<213> Homo sapiens

<400> 199

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Tyr Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 200

<211> 251

<212> PRT

<213> Homo sapiens

<400> 200

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Val Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Åla Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 201

<211> 251

<212> PRT

<213> Homo sapiens

<400> 201

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 . 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Glu Tyr Tyr 100 105 110

Pro Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Thr Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 . 205

Glu Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Arg Leu Glu Pro Glu 210 215 , 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Val Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 202

<211> 251

<212> PRT

<213> Homo sapiens

<400> 202

Gln Val Gln Leu Val Gln Ser Gly Val Glu Ala Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Pro Leu Ser Pro Gly Glu Arg 145 150 155

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 203

<211> 251

<212> PRT

<213> Homo sapiens

<400> 203

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 \cdot 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Glu Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Tyr Leu 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Ala Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

<210> 204

<211> 251

<212> PRT

<213> Homo sapiens

<400> 204

Gln Val Gln Leu Val Gln Ser Gly Val Gly Val Lys Lys Pro Gly Ala

1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 205

<211> 251

<212> PRT

<213> Homo sapiens

<400> 205

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ 25 \\ 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 . 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Gly 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215. 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 \cdot 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 206

<211> 251

<212> PRT

<213> Homo sapiens

<400> 206

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ 25 \\ 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Pro Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe His Phe Tyr 100 105 110
- Pro Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 207

<211> 251

<212> PRT

<213> Homo sapiens

<400> 207

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Ala Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 208

<211> 251

<212> PRT

<213> Homo sapiens

<400> 208

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Glu Ala Phe \cdot 100 105 110

Ser Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \,$ $135 \,$ $140 \,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Val Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 209

<211> 251

<212> PRT

<213> Homo sapiens

<400> 209

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gly Phe Tyr 100 105 110

Pro Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Gly Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 210

<211> 251

<212> PRT

<213> Homo sapiens

<400> 210

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Thr Arg Gly Trp Val 165 . 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Ser Arg Leu Leu Met Tyr 180 185 190

Gly Ser Ser Arg Arg Ala Ala Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Ser Ala Val Tyr Cys Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 211

<211> 251

<212> PRT

<213> Homo sapiens

<400> 211

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 . 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Ile Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Pro Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 212

<211> 251

<212> PRT

<213> Homo sapiens

<400> 212

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn-His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Trp Tyr Tyr 100 105 110

Gln Asp Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu . 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 213

<211> 251

<212> PRT

<213> Homo sapiens

<400> 213

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60 .

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Pro Phe Tyr 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 214

<211> 251

<212> PRT

<213> Homo sapiens

<400> 214

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 . 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 $$135\$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Ala Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 215

<211> 251

<212> PRT

<213> Homo sapiens

<400> 215

Gln Val Gln Leu Val Gln Ser Glu Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr $130\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 · 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 216

<211> 251

<212> PRT

<213> Homo sapiens

<400> 216

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Ser Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 . 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245

<210> 217

<211> 251

<212> PRT

<213> Homo sapiens

<400> 217

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Glu Tyr Phe 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \\ \hspace{1.5cm} 135 \\ \hspace{1.5cm} 140$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg

<210> 218

<211> 251

<212> PRT

<213> Homo sapiens

<400> 218

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys \$85\$ 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Glu Phe Phe 100 105 110

Pro Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 219

<211> 251

<212> PRT

<213> Homo sapiens

<400> 219

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Glu Tyr Leu 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glụ Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 220

<211> 251

<212> PRT

<213> Homo sapiens

<400> 220

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Tyr Tyr 100 105 110

Ser Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \hspace{1.5cm} 135 \hspace{1.5cm} 140 \hspace{1.5cm}$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 221

<211> 251

<212> PRT

<213> Homo sapiens

<400> 221

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Arg Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Phe Tyr Tyr 100 105 110

Thr Ala Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 222

<211> 251

<212> PRT

<213> Homo sapiens

<400> 222

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Tyr Leu 100 105 110

Pro Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 223

<211> 251

<212> PRT

<213> Homo sapiens

<400> 223

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe $50 \,\,\,$

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 . 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp. Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr
130 . 135 140

Thr Leu Thr Gln Ser Pro Asp Ala Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg $245 \hspace{1.5cm} 250 \hspace{1.5cm}$

<210> 224

<211> 251

<212> PRT

<213> Homo sapiens

<400> 224

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn Tyr 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 · 140

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 . 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 225

<211> 251

<212> PRT

<213> Homo sapiens '

<400> 225

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Met His Tyr Tyr 100 105 110

Pro Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145. 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 226 ·

<211> 251

<212> PRT

<213> Homo sapiens

<400> 226

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Leu Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \,$ $135 \,$ $140 \,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 227

<211> 251

<212> PRT

<213> Homo sapiens

<400> 227

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Gln Tyr Phe 100 . 105 110

Arg Tyr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 . 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 228

<211> 251

<212> PRT

<213> Homo sapiens

<400> 228

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Gln Val Phe 100 105 110

Asp Thr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val , 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 229

<211> 251

<212> PRT

<213> Homo sapiens

. <400> 229

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala. Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Val Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 . 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 230

<211> 251

<212> PRT

<213> Homo sapiens

<400> 230

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 . 105 110

Asp His Trp Gly Gln Gly Ala Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 $\,$ 135 $\,$ 140 $^{\prime}$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 231

<211> 251

<212> PRT

<213> Homo sapiens

<400> 231

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Asp Tyr Tyr 100 105 110

Ser Ser Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr
130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230

235

240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 232

<211> 251

<212> PRT

<213> Homo sapiens

<400> 232

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Ala Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 233

<211> 251

<212> PRT.

<213> Homo sapiens

<400> 233

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Arg Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 234

<211> 251

<212> PRT

<213> Homo sapiens

<400> 234

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lýs Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Pro Phe Tyr 100 105 110

Pro His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg

<210> 235

<211> 251

<212> PRT

<213> Homo sapiens

<400> 235

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 . 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

 65
 70
 75
 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Gly Phe Tyr 100 105 110

Pro Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr
180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 236

<211> 251

<212> PRT

<213> Homo sapiens

<400> 236

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 . 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser His $20 \\ 25 \\ 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr \cdot 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 237

<211> 251

<212> PRT

<213> Homo sapiens

<400> 237

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Met Asp Phe Tyr 100 105 110

Ser Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 277

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 238

<211> 251

<212> PRT

<213> Homo sapiens

<400> 238

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Ile Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135, 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 239

<211> 251

<212> PRT

<213> Homo sapiens

<400> 239

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 240

<211> 251

<212> PRT

<213> Homo sapiens

<400> 240

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp. Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Pro Phe Tyr 100 105 110

Ala Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 . 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Pro Thr 225 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 241

<211> 251

<212> PRT

<213> Homo sapiens

<400> 241

Gln Val Gln Leu Val Gln Ala Ala Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
245 250

<210> 242

<211> 251

<212> PRT

<213> Homo sapiens

<400> 242

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 . 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Ala Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 243

<211> 251

<212> PRT `

<213> Homo sapiens

<400> 243

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Gly Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe
100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Ser Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg ·245 250

<210> 244

<211> 251

<212> PRT

<213> Homo sapiens

<400> 244

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Pro Tyr Leu 100 105 110

Thr His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 245

<211> 251

<212> PRT

<213> Homo sapiens

<400> 245

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val \$35\$ 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Asn Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130\,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 $\cdot205$

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 246

<211> 251

<212> PRT

<213> Homo sapiens

<400> 246

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Asn Gly Gly Gly 120

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 150

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 170 165

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 185

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 200

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 215

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 230

Phe Gly Gln Gly Thr Arg Leu Glu Val Lys Arg 245

<210> 247 <211> 251

<212> PRT

<213> Homo sapiens

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala

Ser Val Lys Val Ser Cys Glu Ala Ser Gly Tyr Thr Phe Ser Asn His 20

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 , 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 248

<211> 251

<212> PRT

<213> Homo sapiens

<400> 248

Gln Val Gln Leu Val Gln Ser Val Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser . 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 , 250

<210> 249

<211> 251

<212> PRT

<213> Homo sapiens

<400> 249

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Asn Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg \$245\$

<210> 250

<211> 251

<212> PRT

<213> Homo sapiens

<400> 250

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Ala Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 251

<211> 251

<212> PRT

<213> Homo sapiens

<400> 251

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Gly Phe Tyr 100 105 110

Pro Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 252

<211> 251

<212> PRT

<213> Homo sapiens

<400> 252

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu His Tyr His 100 105 110

Thr His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 253

<211> 251

<212> PRT

<213> Homo sapiens

<400> 253

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His
20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Asp Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Ala Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 254

<211> 251

<212> PRT

<213> Homo sapiens

<400> 254

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Asn Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Gly Ser Cys Lys Ala Tyr Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Asn Asp His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Tyr Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile His Phe Leu 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 . 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 230 235

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 255

<211> 251

<212> PRT

<213> Homo sapiens

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Gly Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70. 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Ile Pro Phe Leu 100 105 110

Pro Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 298

225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 256

<211> 251

<212> PRT

<213> Homo sapiens

<400> 256

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Ala Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg
145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 257

<211> 251

<212> PRT

<213> Homo sapiens

<400> 257

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg

145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 · 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 258

<211> 251

<212> PRT

<213> Homo sapiens

<400> 258

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His 20 25 30

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Glu Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr 65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Phe Gln Tyr Phe 100 105 110

Asp His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 259

<211> 251

<212> PRT

<213> Homo sapiens ·

<400> 259

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Glý Tyr Thr Phe Ser Asn His .

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr

65 70 75 80

Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Met His Tyr Leu 100 105 110

Pro Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr $130 \,$ $135 \,$ $140 \,$

Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 155 160

Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val
165 170 175

Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190

Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205

Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg 245 250

<210> 260

<211> 251

<212> PRT

<213> Homo sapiens

<400> 260

Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asn His

Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val 35 40 45

- Gly Trp Ile Ser Gly His Asp Asp Ser Thr Lys Tyr Ala Gln Lys Phe 50 60
- Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
- Ile Glu Leu Arg Ser Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
- Ala Arg Pro Phe Tyr Asp Thr Leu Thr Ser Tyr Val Leu Glu Phe Phe 100 105 110
- Ser His Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly 115 120 125
- Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr 130 135 140
- Thr Leu Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly Glu Arg 145 150 150 155 160
- Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Arg Gly Trp Val 165 170 175
- Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Met Tyr 180 185 190
- Gly Thr Ser Arg Arg Ala Thr Gly Val Pro Asp Arg Phe Ser Gly Ser 195 200 205
- Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu 210 215 220
- Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Thr Ser Pro Arg Thr 225 230 235 240
- Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg $$245\ . \ \ 250$

<210> 261

<211> 244

<212> PRT

<213> Homo sapiens

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Val
35 40 45

Ser Ala Ile Thr Trp Asn Ser Gly His Ile Asp Tyr Ala Asp Ser Val 50 55 60

Glu Gly Arg Phe Ala Val Ser Arg Asp Asn Ala Lys Asn Ala Leu Tyr 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Lys Ala Ser Tyr Leu Ser Thr Ser Ser Ser Leu Asp Asn Trp Gly 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly 115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro

Ser Ser Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg 145 150 155 160

Ala Ser Gln Gly Ile Arg Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro 165 170 175

Gly Lys Ala Pro Lys Leu Leu Ile Tyr Ala Ala Ser Thr Leu Gln Ser 180 185 190

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr 195 . 200 205 .

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys 210 215 220

Gln Lys Tyr Asn Ser Ala Pro Tyr Ala Phe Gly Gln Gly Thr Lys Val